

CHAPTER 7.0

BIOLOGICAL RESOURCES:

LAND COVER TYPES AND ASSOCIATED NATIVE SPECIES

This chapter analyzes anticipated changes to land cover types within the HCP Permit Area as a framework for analyzing changes in species habitat that could affect the fish, wildlife, and plant species that use those habitats for breeding, foraging, or sheltering behaviors during their life history. The land cover types defined in the HCP Permit Area include natural vegetation communities as well as non-natural land covers (resulting from past and ongoing anthropogenic uses). This chapter also describes potential affects to common native species within the HCP Permit Area. Plant and wildlife species considered to be “special-status,” including the HCP Covered Species, are analyzed in Chapter 8, Biological Resources: Wildlife.

Public and agency comments received during early public scoping (CPUC 2009, 2010) were also considered and incorporated by reference into this analysis (see Sections 1.3, Public and Agency Involvement, and 1.4, Relationship of EA to Other Environmental Documents) included concerns regarding impacts on wetlands, riparian habitat, and other sensitive vegetation communities.

7.1 AFFECTED ENVIRONMENT

This chapter describes the land covers in the HCP Permit Area, changes to land covers as a result of the proposed action, and potential effects to common native species as a result of those changes. This chapter also identifies invasive and noxious weeds occurring within the HCP Permit Area.

Common native species analyzed in this National Environmental Policy Act (NEPA) document were determined through a review of available biological technical reports prepared by Southern California Edison (SCE) for the Cross Valley Loop Project EIR (CPUC 2009, 2010).

7.1.1 Land Cover Types and Natural Communities

Before European settlement, the dominant vegetation communities in the HCP Permit Area would likely have been interior live oak woodland, valley oak woodland, great valley mixed riparian forest, and annual and perennial grassland. Cottonwood Creek and Kaweah River would have been the main water resources in the HCP Permit Area, while other smaller tributaries and creeks would also have been common (Quad Knopf 2011). European-American trappers entered the region in the 1820s, attracted by the fur-bearing animals that inhabited the Central Valley. Prior to the Gold Rush, the HCP Permit area was devoted to grazing and hunting, as immense herds of cattle and some horses roamed the valley. With the resulting influx of population during the Gold Rush, the production of food was needed to support the mines, and the San Joaquin

Valley developed to become an agricultural supplier. The landscape reflects this history with its many citrus groves and irrigation features, some of which date to the mid-1800s. These include the Tulare Irrigation District Canal, Pennebaker Ditch, and Foothill Ditch. The Friant-Kern Canal is part of the larger Central Valley Project and was constructed to transport water from the San Joaquin River, south, to the Bakersfield area in Kern County. The canal receives water from an outlet on the Friant Dam, which impounds Millerton Reservoir. The canal was built by the U.S. Bureau of Reclamation between 1945 and 1951 (Pacific Legacy Inc. 2012).

The HCP Permit Area is composed of a combination of developed, agricultural, and natural land uses with agricultural and developed uses dominating the HCP Permit Area west of the Friant-Kern Canal, and native land covers are more prevalent east of the Friant-Kern Canal. The HCP defines 12 land cover types within the HCP Permit Area: (1) annual grassland, (2) vernal pool/swale, (3) riparian, (4) riverine, (5) agricultural–orchard, (6) agricultural–vineyard, (7) agricultural–row/field crops (8) puddle, (9) basin/stock pond, (10) lined canal, (11) ditch, and (12) developed. This NEPA document analyzes the potential environmental effects from implementation of the HCP permit. Effects to land covers provide the context for analysis of effects on biological resources from implementation of the HCP. Therefore, in order to effectively correlate implementation of the HCP to potential effects on biological resources, the U.S. Fish and Wildlife Service (Service) determined that use of the same land cover types would be appropriate. The Service provided review and input throughout development of the HCP and conducted an independent review of the HCP Permit Area land-cover polygons to confirm that the land-cover designations described in the HCP were accurate. Figure 7-1 depicts the geographic extent of each land cover and Table 7-1 summarizes the acres of each land cover type within the HCP Permit Area. A description of each land cover type is provided following Table 7-1. This document assesses whether the HCP document is in compliance with NEPA; therefore, it will analyze the same land-cover classification that was developed by the HCP.

Table 7-1
Land Cover Types Occurring in the HCP Permit Area

Land Cover	Total Acres (HCP Permit Area)	% of Total (HCP Permit Area)
Annual Grassland	1,048	31.0
Vernal Pool/Swale	7	0.2
Riparian	8	0.2
Riverine	10	0.3
Agricultural–Orchard	1,432	42.3
Agricultural–Vineyard	57	1.7
Agricultural–Row/Field Crops	324	9.6
Puddle	1	0.0
Basin/Stock Pond	12	0.4
Lined Canal	7	0.2

Table 7-1
Land Cover Types Occurring in the HCP Permit Area

Land Cover	Total Acres (HCP Permit Area)	% of Total (HCP Permit Area)
Ditch	28	0.8
Developed	450	13.3
Total Acres	3,385	100

7.1.1.1 Annual Grassland

The annual grassland land-cover type corresponds to the non-native grassland community (Element Code 42200) of the Holland classification of California plant communities (Holland 1986) and California annual grassland in the Manual of California Vegetation (MCV) classification of California plant communities. One exception, however, is that in the California Wildlife Habitat Relationships (CWHR) system, annual grassland also includes vernal pool/swale, which are a separate land cover type in this document (CDFG 2005). The annual grassland land-cover type is found on relatively undisturbed or unplowed landscapes. It is dominated by non-native annual grass species, which actively grow during winter and spring and are mostly dormant during the summer and fall dry season, and is intermixed with a variety of showy-flowered native forbs and grasses, especially in years with favorable rainfall. This land-cover type is typically found on fine-textured, usually clay soils that can be moist or water-logged during the winter season and very dry during the summer and fall seasons (Holland 1986).

Within the HCP Permit Area, the annual grassland land-cover type is mostly located east of the Friant-Kern Canal, with a total of 978 acres located in this portion of the HCP Permit Area. These areas are in private ownership and are grazed by cattle at various frequency and intensity, resulting in monotypic stands of non-native grasses. There is little disturbance outside of grazing in these areas. A 70-acre area of annual grassland occurs along the north-south portion of the HCP Permit Area. This area is surrounded by agricultural and developed uses, including residential development.

Non-native grasses dominate the annual grassland land-cover within the HCP Permit Area and include naturalized non-native species including soft chess (*Bromus hordeaceus*), ripgut brome (*B. diandrus*), red brome (*B. madritensis* ssp. *rubens*), wild oats (*Avena barbata* and *A. fatua*), foxtail barley (*Hordeum jubatum*), and annual rye (*Lolium multiflorum*). The dominant naturalized non-native and native forbs are redstem filaree (*Erodium cicutarium*), fiddleneck (*Amsinckia menziesii*), purple brodiaea (*Dichelostemma pulchella*), pepperweed (*Lepidium nitidum*), blow-wives (*Achyrachaena mollis*), bicolor lupine (*Lupinus bicolor*), popcorn flower (*Plagiobothrys nothofulvus*), lotus (*Lotus micranthus*), and gilia (*Gilia tricolor*) (Quad Knopf 2010). Small patches of interior live oak (*Quercus wislizenii*) also occur within the annual grassland east of the Friant-Kern Canal.

Rock outcrops occur in the annual grassland land-cover type east of Friant-Kern Canal and total approximately 40.3 acres (Quad Knopf 2010). These are mostly of granitic origin and support relatively more native forb species than the remainder of this land-cover type. The rocky outcrops contain plants that are usually situated in fissures in the rocks or on shelves within the rock outcrops. The species that predominate in these areas can generally tolerate extremely dry conditions. Native species that dominate within the rock outcrops include bush monkeyflower (*Mimulus aurantiacus*), pterostegia (*Pterostegia drymarioides*), lamarkia (*Lamarckia aurea*), spider lupine (*Lupinus benthamii*), poison oak (*Toxicodendron diversiloba*), and golden yarrow (*Eriophyllum confertifolium*). Blue elderberry (*Sambucus nigra* ssp. *caerulea*), interior live oak, California buckthorn (*Frangula californica*), and coffeeberry (*Frangula californica* ssp. *californica*) also occur in the annual grassland cover type along dry ridges and rock outcrops east of Friant-Kern Canal.

7.1.1.2 Vernal Pool/Swale

Vernal pools are seasonally flooded landscape depressions in otherwise nearly level topography that are underlain by an impervious layer that prevents infiltration after seasonal precipitation events. Vernal pools are considered “sensitive natural communities” by the California Department of Fish and Wildlife (CDFW) and the Service because of their current local and regional scarcity relative to their past extent, their importance to many plant species that occur only in vernal pools, and their value to migratory water birds and other wildlife. The CDFW designates vernal pools as a community of highest inventory priority because of their values and ongoing threats to their existence (Holland 1986).

The vernal pools in the HCP Permit Area are northern hardpan vernal pools and are mostly underlain by iron-silicate clay hardpan soils. The frequency and duration of seasonal inundation varies among the vernal pools and is determined in part by the size of the basin and size of its watershed, soil depth to the impervious layer, patterns of surface and subsurface water movement, and patterns and amounts of rainfall. Vernal pools in the HCP Permit Area receive or discharge water to drainage pathways called “vernal swales.” Vernal swales often remain saturated for much of the wet season but may not be inundated long enough to develop the vegetation characteristic of vernal pools. The vernal pool and vernal swales present in the HCP Permit Area are dominated by annual forbs, and in some areas, grasses intermixed with perennial forbs (Quad Knopf 2010). Representative plant species in this land-cover type in HCP Permit Area include stalked popcorn flower (*Plagiobothrys stipitatus*), goldfields (*Lasthenia fremontii*), woolly heads (*Psilocarphus tenellus*), toad rush (*Juncus bufonius*), wild barley (*Hordeum murinum*), loosestrife (*Lythrum hyssopifolium*), and pale spikerush (*Eleocharis macrostachya*). Vernal pool species tolerate, or depend on, seasonal flooding or soil saturation during the growing season. Managed grazing on the rangelands where the vernal pools and swales are located helps maintain a habitat mosaic required by special-status plant

species. There are approximately 7 acres of vernal pools/swales in the HCP Permit Area, all of which are east of the Friant-Kern Canal, and are concentrated in the eastern 8-mile portion of the HCP Permit Area. One vernal swale was identified within the HCP Permit Area approximately 1 mile east of Cottonwood Creek.

7.1.1.3 Riparian

Riparian vegetation is a sensitive natural community in California because its extent has been substantially reduced from historical conditions and it provides important habitat for plant and wildlife species. Much of this land cover type is associated with the riverine land cover type.

Riparian vegetation in the HCP Permit Area is a mix of oaks, willows, cottonwoods, and other riparian plants, which occur primarily along the St. John's River and Cottonwood Creek crossings. This mixed forest and valley oak dominated vegetation correspond to the valley mixed riparian forest and great valley oak riparian forest, respectively, of Holland's classification of California plant communities (Holland 1986). The riparian land cover type corresponds to the valley foothill riparian habitat type of the CWHR system (Mayer and Laudenslayer 1988). The MCV subdivides riparian vegetation in the Central Valley into more than a dozen series of plant communities based primarily on the tree or shrub species that dominate a particular patch (CDFG 2005). Valley mixed riparian forests in the HCP Permit Area have an overstory dominated by arroyo willow (*Salix lasiolepis*), Goodding's willow (*S. gooddingii*), valley oak (*Quercus lobata*), and Fremont cottonwood (*Populus fremontii*). Understory species include Himalaya blackberry (*Rubus armeniacus*), blue elderberry, native California grape (*Vitis californica*), and stinging nettle (*Urtica dioica holosericea*). Valley oak dominated land cover in the HCP Permit Area consists of small patches of riparian vegetation (up to 0.03 acre in size) with valley oaks. These patches are remnants of much more extensive valley oak dominated areas historically present in the eastern San Joaquin Valley of Tulare County. Riparian vegetation along the St. John's River and Cottonwood Creek has been affected by bank clearing, which has reduced the structural diversity of the vegetation and reduced the cover of understory and canopy plants. Riparian habitats support a diverse assemblage of wildlife species because its structural complexity and association with riverine habitats provide a variety of food and cover. This habitat also provides important movement corridors for wildlife and connectivity to other habitats (Mayer and Laudenslayer 1988). Approximately 8 acres of riparian land cover occur in the HCP Planning Area.

7.1.1.4 Riverine

Riverine land cover consists of seasonal or perennial watercourses that include open water and associated emergent vegetation (e.g., narrow-leaf cattail (*Typha angustifolia*), soft rush (*Juncus effuses*)). There are no corresponding natural community types in the Holland or MCV

classifications of California plant communities (Holland 1986; CDFG 2005). The riverine land cover is often bordered by the riparian land cover type. The HCP Permit Area crosses two riverine systems the St. John's River and Cottonwood Creek. Both are bordered by the riparian land cover type but otherwise flow through a landscape dominated by agricultural land cover. The riverine land cover type corresponds to the riverine habitat type of the CWHR system (Mayer and Laudenslayer 1988). Riverine land cover totals approximately 10 acres in the HCP Permit Area.

7.1.1.5 Agricultural–Orchard

Orchards in the HCP Permit Area are irrigated agricultural land planted with fruit or nut tree crops. It is typically an open, single-tree-dominated habitat where planting is linear and spacing between trees is uniform. The agricultural/orchard land cover type includes both the evergreen and deciduous orchard habitat types listed in the CWHR system (Mayer and Laudenslayer 1988; CDFG 2005). Evergreen orchards, as defined by the CWHR, include trees such as avocados (*Persea Americana*), citrus (*Citrus sinensis*), olives (*Olea europaea*), and deciduous orchards as defined by the CWHR, which include trees such as almonds (*Prunus amygdalus*), apples (*Malus* spp.), apricots (*Prunus armeniaca*), peaches (*Prunus persica*), plums (*Prunus domestica*), and walnuts (*Juglans regia*). There are no corresponding natural communities included in the Holland or MCV classifications of California natural communities (Holland 1986; CDFG 2005). In the HCP Permit Area, citrus and olives are the most widely planted crops. Additional species include walnuts, peaches, and plums. This is the predominant land cover in the HCP Permit Area, totaling 1,432 acres, and it occurs throughout the HCP Permit Area.

7.1.1.6 Agricultural–Vineyard

Vineyards are irrigated agricultural land that is planted with a single species grown in rows and supported on wood or wire trellises. The agricultural/vineyard land cover type corresponds to the vineyard habitat type listed in the CWHR system (Mayer and Laudenslayer 1988; CDFG 2005). In the HCP Permit Area, vineyards are planted with several cultivars of the domestic grape (*Vitis vinifera*). This land cover occurs both immediately west of the Friant-Kern Canal and approximately 0.5 mile east of the western intersection of the HCP Permit Area and Cottonwood Creek. There are no corresponding natural communities included in the Holland or MCV classifications of California natural communities (Holland 1986; CDFG 2005). There are 57 acres of agricultural/vineyard within the HCP Permit Area.

7.1.1.7 Agricultural–Row/Field Crops

Row and field crops are agricultural land planted with herbaceous crops such as alfalfa (*Medicago sativa*) and winter wheat (*Triticum aestivum*). The agricultural row/field land cover type corresponds to the irrigated grain crops, irrigated hayfield, irrigated row and field crops, and pasture habitat types of the CWHR system (Mayer and Laudenslayer 1988; CDFG 2005). This

land-cover type is mostly located within the east–west portion of the HCP Permit Area, specifically immediately west of the Friant-Kern Canal, and immediately east and west of Cottonwood Creek. There are no corresponding natural communities in the Holland or MCV classifications of California plant communities (Holland 1986, CDFG 2005). There are approximately 324 acres of agricultural row/field crops in the HCP Permit Area.

7.1.1.8 Puddle

Extensive rains within the HCP Permit Area can potentially cause the puddle land-cover type to form. The HCP defines puddles as small, isolated depressions (either artificial or natural in origin) that become inundated for relatively short periods of time (i.e., 1–3 weeks) after larger rainstorms but do not support hydrophytic plants (as defined by the U.S. Army Corps of Engineers (1987, 2008) and the Service (1996)). They are located in or adjacent to roads, in agricultural or annual grassland land cover. Most commonly, these depressions are ruts created by vehicles but also include some natural depressions. There is no corresponding habitat or natural community type in the Holland, CWHR, or MCV systems (Holland 1986; Mayer and Laudenslayer 1988; CDFG 2005). Vegetated puddles in the HCP Permit Area are characterized by plant species typical of annual grassland or weedy species of developed land cover. These puddles provide habitat for vernal pool species, with short life and/or breeding cycles such as branchiopods and western spadefoot toad (*Spea hammondi*). There is approximately 1 acre of puddles within the HCP Permit Area, and this land-cover type occurs across the entire HCP Permit Area.

7.1.1.9 Basin/Stock Pond

Basins and stock ponds are artificial features managed and maintained by landowners. There is not a corresponding habitat or natural community type in the Holland, CWHR, or MCV systems (Holland 1986; Mayer and Laudenslayer 1988; CDFG 2005). Basins and stock ponds can fulfill a range of functions, including to support agricultural activities or to retain stormwater. Within the HCP Permit Area, this land-cover type includes a ponding basin flooded by a nearby orchard irrigation, a large storm drain retainment basin, and a number of smaller stock ponds. This land cover may be intermittently to perennially filled with water and is typically unvegetated, bordered by vegetation that may be natural (e.g., adjacent annual grassland) or ornamental (e.g., palms, mulberry). Generally, basins and stock ponds are actively maintained features with inlet and/or outlet pipes. The stock ponds and basins frequently dry out in the summer. There are approximately 12 acres of basins/stock ponds within the HCP Permit Area.

7.1.1.10 Lined Canal

Lined canals are water conveyance systems that are lined with concrete, polymer, and/or riprap. These unvegetated features provide minimal habitat suitability for wildlife because they lack

vegetation and are actively maintained. There is not a corresponding habitat or natural community type in the Holland, CWHR, or MCV systems (Holland 1986; Mayer and Laudenslayer 1988; CDFG 2005). The largest of these features within the HCP Permit Area is the Friant-Kern Canal along the east–west portion. Approximately 7 acres of lined canals occur within the HCP Permit Area.

7.1.1.11 Ditch

The ditch land-cover type includes roadside ditches that divert runoff from roads, as well as drainage and irrigation channels that support agriculture activities. These ditches can be intermittently to seasonally inundated. These artificial and maintained features support weedy species (similar to developed land cover) or are unvegetated, and they are connected by culverts at road crossings. There is not a corresponding habitat or natural community type in the Holland, CWHR, or MCV systems (Holland 1986; Mayer and Laudenslayer 1988; CDFG 2005). Along the north–south portion of the HCP Permit Area, this land-cover type predominantly occurs south of Mill Creek and just north of the St. John’s River. This land-cover type is found scattered across all the east–west portion of the HCP Permit Area. Approximately 28 acres of ditches occur within the HCP Permit Area.

7.1.1.12 Developed

The developed land cover type primarily occurs in the City of Visalia and Farmersville at the southern terminus of the HCP Permit Area and in the vicinity of the City of Woodlake located in the east–west portion of the HCP Permit Area. In addition, this land-cover type occurs along major roadways within the HCP Permit Area. Much of the developed land cover in the HCP Permit Area is intermixed with agricultural lands; heavily disturbed, or ruderal areas; and small patches of remnant natural vegetation. This land cover type includes the ranches, houses, agricultural and commercial buildings, and associated roads and facilities in Visalia, Farmersville, Woodlake, and elsewhere throughout the HCP Permit Area. The developed land cover type corresponds to the urban habitat type of the CWHR system (Mayer and Laudenslayer 1988). There are no corresponding natural communities in the Holland or MCV classifications of California plant communities (Holland 1986; CDFG 2005). Some urban areas and other disturbed habitats in the developed land cover are dominated by weedy species, such as prickly lettuce (*Lactuca serriola*), milk thistle (*Silybum marianum*), horseweed (*Conyza canadensis*), telegraph weed (*Heterotheca grandiflora*), and Bermuda grass (*Cynodon dactylon*). Examples of these disturbed areas in the HCP Permit Area include roadsides, ditch banks, vacant lots near urban or agricultural buildings, and other disturbed or highly modified locations. Approximately 450 acres of developed land cover occur in the HCP Permit Area.

7.1.2 Invasive and Noxious Weeds

Noxious weeds are characterized as non-native plants that aggressively colonize new areas and can grow to dominate native plant communities if uncontrolled. Noxious weeds have a competitive advantage over native species and can form an expansive monoculture. Noxious weeds alter physical or chemical soil conditions, dominate the landscape to the detriment of native plants and wildlife, preempt ground and surface water resources, compromise agricultural operations, conflict with recreational values, create fire hazards, and compromise aesthetic values of native or urban landscapes. Noxious weeds are often quick to colonize disturbed areas, including construction sites, roadsides, irrigated sites, or any other area with altered hydrology, soil structure, or soil chemistry. Invasive plants are introduced species that can thrive in areas beyond their natural range of dispersal. These plants are characteristically adaptable, aggressive, and have a high reproductive capacity. Their vigor combined with a lack of natural enemies often lead to outbreak populations.

The following list defines the types of weedy plant species:

- Exotic Plants – Species not indigenous to a given area before European settlement
- Native Plants – Species indigenous to a given area before European settlement
- Noxious Weeds – Species identified by public law as exerting substantial negative environmental or economic impact (noxious weeds are a subset of exotic plants; the term “noxious weeds” is a legal classification, not an ecological term.)
- Invasive Plants – Species defined by Executive Order 13112 (64 FR 6183) as implemented by the National Invasive Species Information Center.

The U.S. Department of Agriculture (USDA) maintains the official federal list of noxious weeds (7 CFR 360.200; USDA 2013). In addition to the federal list, the California Department of Food and Agriculture (CDFA) maintains the list of official noxious weeds requiring control under the Noxious Weed Act of 1989 (CDFA 2010). The official weed list was last updated in the California Code of Regulations (CCR) (3 CCR 4500) in January 2010. The USDA and CDFA lists were used to assemble a combined list of targeted noxious weeds that occur within the HCP Permit Area (Quad Knopf 2011). Species considered by the State of California as Class A and Class B noxious weeds (CDFA 2010) and species on the federal list of noxious weeds (USDA 2013) that could occur in the HCP Permit Area are listed in Table 7-2.

Table 7-2
State of California List of Class A and Class B
Noxious Weed Species and Noxious Weed Seeds

Scientific Name	Common Name
<i>Class A: Eradication, Containment, Rejection, or Other Holding Action at the State or County Level</i>	
<i>Acaena novae-zelandiae</i>	Biddy-biddy
<i>Acaena pallida</i>	Pale biddy-biddy
<i>Achnatherum brachychaetum</i>	Punagrass
<i>Alhagi maurorum</i>	Camelthorn
<i>Alternanthera philoxeroides</i>	Alligator weed
<i>Arctotheca calendula</i>	Capeweed
<i>Carduus acanthoides</i>	Plumeless thistle
<i>Carduus nutans</i>	Musk thistle
<i>Carthamus leucocaulos</i>	Whitestem distaff thistle
<i>Centaurea diffusa</i>	Diffuse knapweed
<i>Centaurea iberica</i>	Iberian star thistle
<i>Centaurea maculosa</i>	Spotted knapweed
<i>Centaurea squarrosa</i>	Squarrose knapweed
<i>Chondrilla juncea</i>	Skeleton weed
<i>Cirsium ochrocentrum</i>	Yellowspine thistle
<i>Cirsium undulatum</i>	Wavyleaf thistle
<i>Crupina vulgaris</i>	Bearded creeper
<i>Cucumis melo</i> var. <i>dudaim</i>	Dudaim melon
<i>Cuscuta reflexa</i>	Giant dodder
<i>Euphorbia esula</i>	Leafy spurge
<i>Euphorbia serrata</i>	Serrate spurge
<i>Halimodendron halodendron</i>	Russian salttree
<i>Halogeton glomeratus</i>	Halogeton
<i>Helianthus ciliaris</i>	Blueweed
<i>Heteropogon contortus</i>	Tanglehead
<i>Hydrilla verticillata</i> ¹	Hydrilla
<i>Linaria genistifolia</i> ssp. <i>dalmatica</i>	Dalmatian toadflax
<i>Onopordum acanthium</i>	Scotch thistle
<i>Onopordum tauricum</i>	Taurian thistle
<i>Onopordum illyricum</i>	Illyrian thistle
<i>Orobancha cooperi</i>	Cooper's broom rape
<i>Orobancha ramosa</i>	Branched broom rape
<i>Peganum harmala</i>	Harmel
<i>Physalis longifolia</i>	Long-leaf ground cherry
<i>Prosopis strombulifera</i>	Creeping mesquite
<i>Salsola vermiculata</i>	Wormleaf salsola
<i>Salvia virgata</i>	Southern meadow sage
<i>Scolymus hispanicus</i>	Golden thistle

Table 7-2
State of California List of Class A and Class B
Noxious Weed Species and Noxious Weed Seeds

Scientific Name	Common Name
<i>Solanum cardiophyllum</i>	Heartleaf nightshade
<i>Solanum dimidiatum</i>	Torrey's nightshade
<i>Sonchus arvensis</i>	Perennial sowthistle
<i>Sphaerophysa salsula</i>	Austrian peaweed
<i>Striga asiatica</i>	Witchweed
<i>Tagetes minuta</i>	Wild marigold
<i>Zygophyllum fabago</i>	Syrian beancaper
<i>Class B: Eradication, Containment, Control or Other Holding Action at the Discretion of the Commission</i>	
<i>Acacia paradoxa</i>	Kangaroothorn
<i>Acroptilon repens</i>	Russian knapweed
<i>Aegilops ovata</i>	Ovate goatgrass
<i>Aegilops triuncialis</i>	Barb goatgrass
<i>Aeschynomene rudis</i>	Rough jointvetch
<i>Allium paniculatum</i>	Panicled onion
<i>Allium vineale</i>	Wild garlic
<i>Ambrosia trifida</i>	Giant ragweed
<i>Araujia sericifera</i>	bladderflower
<i>Cardaria chalepensis</i>	Lens-podded hoarycress
<i>Cardaria draba</i>	Heart-podded hoarycress
<i>Candara pubescens</i>	Globe-podded hoarycress
<i>Carthamus baeticus</i>	Smooth distaff thistle
<i>Carthamus lanatus</i>	Woolly distaff thistle
<i>Centaurea calcitrapa</i>	Purple star thistle
<i>Centaurea sulphurea</i>	Sicilian thistle
<i>Chorispota tenella</i>	Purple mustard
<i>Cirsium arvense</i>	Canada thistle
<i>Coronopus squamatus</i>	Swinecress
<i>Cucumis myriocarpus</i>	Paddy melon
<i>Cynara cardunculus</i>	Artichoke thistle
<i>Cyperus esculentus</i>	Yellow nutsedge
<i>Cyperus rotundus</i>	Purple nutsedge
<i>Elytrigia repens</i>	quackgrass
<i>Euphorbia oblongata</i>	Oblong spurge
<i>Gaura coccinea</i>	Scarlet gaura
<i>Gaura drummondii</i>	Drummond's gaura
<i>Gaura sinuata</i>	Waxy-leaved gaura
<i>Gypsophila paniculatum</i>	Baby's breath
<i>Imperata brevifolia</i>	Satintail
<i>Isatis tinctoria</i>	Dyers woad

Table 7-2
State of California List of Class A and Class B
Noxious Weed Species and Noxious Weed Seeds

Scientific Name	Common Name
<i>Lepidium latifolium</i>	Perennial peppergrass
<i>Lythrum salicaria</i>	Purple loosestrife
<i>Muhlenbergia schreberi</i>	Nimblewill
<i>Nothoscordum inodorum</i>	False garlic
<i>Nymphaea mexicana</i>	Banana waterlily
<i>Oryza rufipogon</i>	Perennial wild red rice
<i>Panicum antidotale</i>	Blue panicgrass
<i>Physalis viscosa</i>	Grape groundcherry
<i>Polygonum cuspidatum</i>	Japanese knotweed
<i>Polygonum polystachyum</i>	Himalayan knotweed
<i>Polygonum sachalinense</i>	Giant knotweed
<i>Rorippa austriaca</i>	Austrian field cress
<i>Salvia aethiopis</i>	Mediterranean sage
<i>Senecio jacobaea</i>	Tansy ragwort
<i>Senecio squalidus</i>	Oxford ragwort
<i>Setaria faberi</i>	Giant foxtail
<i>Solanum carolinense</i>	Carolina horsenettle
<i>Solanum elaeagnifolium</i>	White horsenettle
<i>Solanum lanceolatum</i>	Lanceleaf nightshade
<i>Solanum marginatum</i>	White-margined nightshade
<i>Symphytum asperum</i>	Rough comfrey
<i>Ulex europaeus</i>	Gorse
<i>Viscum album</i>	European mistletoe

Source: CDFA 2010

¹Listed on the Federal Noxious Weed List (USDA 2013).

7.1.3 Native Wildlife

7.1.3.1 Annual Grassland and Agricultural Land Covers

Many common native species use both the annual grassland and agricultural land cover types. Wildlife species that are common to grasslands and agricultural areas in the HCP Permit Area are those that are principally associated with the undeveloped Sierra foothills. Common reptiles in the HCP Permit Area are southern alligator lizard (*Elgaria multicarinata*), western fence lizard (*Sceloporus occidentalis*), Gilbert's skink (*Plestiodon gilberti*), Pacific gopher snake (*Pituophis catenifer catenifer*), Valley garter snake (*Thamnophis sirtalis fitchi*), and western rattlesnake (*Crotalus oreganus*). Grasslands and agricultural areas in the HCP Permit Area provide cover and breeding and foraging habitat for these species.

Birds that breed, forage, or otherwise reside in Sierra foothill grasslands include white-tailed kite (*Elanus leucurus*), red-tailed hawk (*Buteo jamaicensis*), Brewer's blackbird (*Euphagus cyanocephalus*), western scrub jay (*Aphelocoma californica*), California quail (*Callipepla californica*), western meadowlark (*Sturnella neglecta*), and mourning dove (*Zenaida macroura*), among many others. Common mammal species in local annual grasslands include California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), black-tailed jackrabbit (*Lepus californicus*), Audubon's cottontail (*Spermophilus audubonii*), and black-tailed deer (*Odocoileus hemionus*).

Croplands are important foraging habitat for numerous raptors and falcons including red-tailed hawk, red-shouldered hawk (*Buteo lineatus*), northern harrier (*Circus cyaneus*), American kestrel (*Falco sparverius*), and white-tailed kite. Other birds typically found in agricultural areas include European starling (*Sturnus vulgaris*), American crow (*Corvus brachyrhynchos*), great-blue heron (*Ardea herodias*), mourning dove, killdeer (*Charadrius vociferus*), and house sparrow (*Passer domesticus*).

Agricultural areas in the HCP Permit Area also provide important movement corridors for common wildlife species such as the coyote (*Canis latrans*) and gray fox (*Urocyon cinereoargenteus*).

Common bat species likely to forage in agricultural and grassland habitat types found in the HCP Permit Area include big brown bat (*Eptesicus fuscus*), little brown bat (*Myotis lucifugus*), hoary bat (*Lasiurus cinereus*), and western pipistrelle (*Parastrellus hesperus*). Buildings and structures in the western portion of the HCP Permit Area may provide suitable roosting habitat for western mastiff bat (*Eumops perotis californicus*).

7.1.3.2 Aquatic Land Covers

Aquatic features in the HCP Permit Area such as vernal pools, puddles, and stock ponds can support a variety of amphibians and aquatic reptiles. Some of these species include western toad (*Bufo boreas*) and pacific chorus frog (*Pseudacris regilla*). When standing water is available, the Pacific tree frog (*Pseudacris regilla*) may use the pools for egg-laying and for the development of young. Many invertebrates are also found in riparian habitat found throughout the HCP Permit Area. Common insect species found in the HCP Permit Area include Coleoptera (beetles and weevils), Dermaptera (earwigs), Diptera (true flies, gnats, midges, and mosquitoes), Hemiptera (true bugs), Homoptera (cicadas, leafhoppers, aphids, and scale insects), Hymenoptera (ants, bees, and wasps), Mantodea (mantises), Odonata (dragonflies and damselflies), Orthoptera (grasshoppers, locusts, katydids, and crickets), Phasmatodea (stick insects), and Psocoptera (lice).

Vernal pool species tolerate, or depend on, seasonal flooding or soil saturation during the growing season. Although vernal pools are an ephemeral aquatic habitat, many invertebrates have adapted to this unique resource. Aquatic invertebrates, such as various genera of clam

shrimp, fairy shrimp (*Branchinecta* sp), cladocerans, crayfish, and copepods can inhabit vernal pools and surrounding puddles. California linderiella (*Linderiella californicus*) and versatile fairy shrimp (*Branchinecta lindahli*) occur within the aquatic habitat of the HCP Permit Area (Quad Knopf 2011).

The western kingbird (*Tyrannus verticalis*), black phoebe (*Sayornis nigricans*), and Say's phoebe (*Sayornis saya*) feed on flying insects congregating above vernal pools, canals, creeks, and puddles. Wildlife present in this habitat may include such species as belted kingfisher (*Ceryle alcyon*), Bullock's oriole (*Icterus bullockii*), red-winged blackbird (*Agelaius phoeniceus*), violet-green swallow (*Tachycineta thalassina*), tree swallow (*Tachycineta tricolor*), and many other migratory species.

7.1.3.3 Riparian and Riverine Land Covers

Riparian habitat provides food, cover, and nesting sites for many wildlife species. Bird species typically found in oak woodlands that are within the riparian land covers include acorn woodpecker (*Melanerpes formicivorus*), northern flicker (*Colaptes auratus*), American robin (*Turdus migratorius*), great-horned owl (*Bubo virginianus*), bushtit (*Psaltiriparus minimus*), oak titmouse (*Baeolophus inornatus*), and hermit thrush (*Catharus guttatus*). Cavity nesting birds and many raptor species rely on oaks and woodland habitat for nesting sites.

Riparian woodlands are extremely productive and important wildlife areas. These areas provide abundant food, cover, and breeding sites for native wildlife and often serve as important wildlife nursery sites and movement corridors. Because they are often undeveloped, riparian corridors provide regional connectivity between otherwise disconnected natural habitat and such woodlands generally support a diverse assemblage of plant and wildlife species. Characteristic bird species in this habitat include great blue heron (*Ardea herodias*), great egret (*Ardea alba*), red-winged blackbird (*Agelaius phoeniceus*), California quail (*Callipepla californica*), mourning dove, Nuttall's woodpecker (*Picoides nuttallii*), black phoebe, western wood-pewee (*Contopus sordidulus*), California towhee (*Pipilo crissalis*), northern harrier, red-tailed hawk, western scrub jay (*Aphelocoma californica*), violet-green swallow, and many other resident and migratory species. Other riparian species include water birds such as the mallard (*Anas platyrhynchos*) and cinnamon teal (*Anas cyanoptera*).

Ten bat species were documented within riparian habitat in the HCP Permit Area: spotted bat (*Euderma maculatum*), western mastiff bat, silver-haired bat (*Lasionycteris noctivagans*), hoary bat, California myotis (*Myotis californicus*), small-footed myotis (*M. ciliolabrum*), western long-eared myotis (*M. evotis*), Yuma myotis (*M. yumanensis*), western pipistrelle, Brazilian free-tailed bat (*Tadarida brasiliensis*) (Quad Knopf 2012).

7.2 IMPACT ANALYSIS REGULATORY FRAMEWORK

The following federal, state, and local regulations pertaining to biological resources would apply to the proposed action.

Federal Regulations

Executive Order 13112—Invasive Species

Executive Order 13112 was signed in February 1999 and established the National Invasive Species Council. This order requires agencies to identify actions that may affect the status of invasive species. It also directs federal agencies not to authorize, fund, or carry out actions that they believe are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless, pursuant to guidelines that the agency has prescribed, it has determined and made public its determination that the benefits of such actions clearly outweigh the potential harm caused by invasive species, and that all feasible and prudent measures to minimize risk of harm will be taken in conjunction with the actions.

Executive Order 11990—Protection of Wetlands

The basic requirement of Executive Order 11990 is that federal agencies avoid construction or management practices that would adversely affect wetlands unless that agency finds that (1) there is no practicable alternative, and (2) the proposed action includes all practicable measures to minimize harm to the wetlands. Executive Order 11990 directs all federal agencies to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural beneficial values of wetlands in the conduct of the agency's responsibilities for (1) acquiring, managing, and disposing of federal lands and facilities; (2) providing federally undertaken, financed, or assisted construction and improvements; and (3) conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulating, and licensing activities.

Lacey Act, as Amended

The Lacey Act (16 U.S.C. 3371–3378) protects plants and wildlife by creating civil and criminal penalties for a wide variety of violations, including illegal take, possession, transport, or sale of protected species.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C. 703 et seq.) is a federal statute that implements treaties with several countries for the conservation and protection of migratory birds. The number of bird species covered by the MBTA is extensive, and is listed at 50 CFR 10.13. The regulatory definition of “migratory bird” is broad and includes any mutation or hybrid of a

MBTA-listed species and any part, egg, or nest of such birds (50 CFR 10.12). Most migratory birds listed under the federal Endangered Species Act are also listed under the MBTA. The MBTA, which is enforced by Service, makes it unlawful “by any means or in any manner, to pursue, hunt, take, capture, [or] kill” any migratory bird, or attempt such actions, except as permitted by regulation. The applicable regulations prohibit the take, possession, import, export, transport, sale, purchase, barter, or offering of these activities, except under a valid permit or as permitted in the implementing regulations (50 CFR 21.11).

Noxious Weed Act of 1974, as Amended

This act provides for the control and management of nonindigenous weeds that injure or have the potential to injure the interests of agriculture and commerce, wildlife resources, or the public health. Under this act, the secretary of agriculture was given the authority to designate plants as noxious weeds, and inspect, seize and destroy products; the secretary also has the authority to quarantine areas, if necessary to prevent the spread of such weeds.

Plant Protection Act of 2000

The Plant Protection Act of 2000 (7 U.S.C. Ch. 104) established a federal program to control the spread of noxious weeds. The secretary of agriculture is authorized to publish a list of plants designated as noxious weeds (7 U.S.C. 7712(f)). The movement of all such weeds in interstate or foreign commerce is prohibited except under permit.

State Regulations

The following State of California regulations pertaining to biological resources would apply to the proposed action.

California Endangered Species Act

The California Endangered Species Act (California Fish and Game Code, Section 2050 et seq.) is administered by the CDFW. The act includes threatened, endangered, and candidate species. Under Section 2062 of the California Fish and Game Code, the term “endangered species” refers to “a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.” Under Section 2067, the term “threatened species” refers to “a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts.” Under Section 2068 the term “candidate species” refers to “a native species or

subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list.”

The California Endangered Species Act prohibits the “take” of listed species except as otherwise provided in state law. Unlike its federal counterpart, the California Endangered Species Act applies the take prohibitions to species that are candidates for state listing. The California Fish and Game Code defines take as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.”

CDFW may authorize the incidental take of listed species under California Endangered Species Act through issuance of an incidental take permit pursuant to California Fish and Game Code, Section 2081, subdivisions (b) and (c). These provisions of the California Fish and Game Code, coupled with CDFW’s “California Endangered Species Act Implementing Regulations” (14 CCR 783.0 et seq.), authorize CDFW to issue an incidental take permit for a project as proposed if (1) the take is incidental to an otherwise lawful activity; (2) the impacts of the taking are minimized and fully mitigated by measures that are roughly proportional in extent to the project-related impact to the species, maintain the applicant’s objectives to the maximum extent possible, and are capable of successful implementation; (3) the applicant ensures adequate funding to implement the measures and for monitoring compliance with and effectiveness of those measures; and (4) the issuance of the permit would not jeopardize the continued existence of the species.

California Fish and Game Code—Nesting Birds

California Fish and Game Code, Section 3503, states: “it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.”

California Fish and Game Code, Section 3503.5, states: “it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird” unless otherwise authorized by the California Fish and Game Code or Title 14.

California Fish and Game Code, Section 3513, states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by federal rules and regulations adopted under MBTA.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Act grants the State Water Resources Control Board and the Regional Water Quality Control Boards power to protect water quality and is the primary vehicle for

implementation of California's responsibilities under the federal Clean Water Act. Any person proposing to discharge waste within any region must file a report of waste discharge with the appropriate regional board.

Lake and Streambed Alteration Program

Under Section 1602 of the California Fish and Game Code, CDFW regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. CDFW has jurisdiction over riparian habitats (e.g., microphyll woodland) associated with watercourses. Section 1602 requires any person or entity who proposes a project that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake or use materials from a streambed to notify the CDFW before beginning the project. If the CDFW determines that the project may adversely affect existing fish and wildlife resources, a lake or streambed alteration agreement issued by CDFW is required.

Local Regulations

The following local/regional regulations pertaining to biological resources would apply to the proposed action.

Tulare County General Plan

The Conservation–Environmental Resources Management Element of the Tulare County General Plan provides objectives, policies, and programs regarding biological resources, including the following (County of Tulare 2012):

- ERM-1.2: Development in Environmentally Sensitive Areas.** The County shall limit or modify proposed development within areas that contain sensitive habitat for special status species and direct development into less significant habitat areas. Development in natural habitats shall be controlled so as to minimize erosion and maximize beneficial vegetative growth.
- ERM-1.4: Protect Riparian Areas.** The County shall protect riparian areas through habitat preservation, designation as open space or recreational land uses, bank stabilization, and development controls.
- ERM-1.5: Riparian Management Plans and Mining Reclamation Plans.** The County shall require mining reclamation plans and other management plans to include measures that protect, maintain, and restore riparian resources and habitats.

- ERM-1.6: Management of Wetlands.** The County shall support the preservation and management of wetland and riparian plant communities for passive recreation, groundwater recharge, and wildlife habitats.
- ERM-1.7: Planting of Native Vegetation.** The County shall encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native vegetation and wildlife, and ensure that a maximum number and variety of well-adapted plants are maintained.
- ERM-1.8: Open Space Buffers.** The County shall require buffer areas between development projects and significant watercourses, riparian vegetation, wetlands, and other sensitive habitats and natural communities. These buffers should be sufficient to assure the continued existence of waterways and riparian habitat in their natural state.
- ERM-1.12: Management of Oak Woodland Communities.** The County shall support the conservation and management of oak woodland communities and their habitats.
- ERM-1.13: Pesticides.** The Tulare County Agricultural Commissioner/Sealer will cooperate with State and Federal agencies in evaluating the side effects of new materials and techniques in pesticide controls to limit effects on natural resources.
- ERM-1.14: Mitigation and Conservation Banking Program.** The County shall support the establishment and administration of a mitigation banking program, including working cooperatively with Tulare County Association of Governments (TCAG), Federal, State, not-for-profit and other agencies and groups to evaluate and identify appropriate lands for protection and recovery of threatened and endangered species impacted during the land development process.
- ERM-1.15: Minimizing Lighting Impacts.** The County shall ensure the lighting associated with new development or facilities (including street lighting, recreational facilities, and parking) shall be designed to prevent artificial lighting from illuminating adjacent natural areas at a level greater than on foot candle above ambient conditions.
- ERM-1.16: Cooperate with Wildlife Agencies.** The County shall cooperate with State and Federal wildlife agencies to address linkages between habitat areas.
- ERM-1.17: Conservation Plan Coordination.** The County shall coordinate with local, State, and Federal habitat conservation planning efforts (including Section 10 Habitat Conservation Plan) to protect Critical Habitat areas that support endangered species and other special-status species.

City of Visalia General Plan

The following objectives from the City of Visalia General Plan Land Use Element would be applicable to land covers and common native species (City of Visalia 1996):

Objective 2.1.A: Preserve and enhance natural and rural features such as waterways, Valley Oaks, and agriculture as significant assets and community resources.

The City of Visalia General Plan Land Use Element calls for the preservation of selected waterways identified as valuable resources, the enhancement of views and public access to waterways and other significant features, expansion of the Conservation, Open Space, Recreation and Parks Element to the entire urban area proposed by the Land Use Element update, the protection of significant stands of valley oak woodland from further development, the enhancement of the scenic quality of the east end of Highway 198, the encouraging of use of native trees in landscaping, and the utilization of natural and man-made features as community buffer zones (City of Visalia 1996).

7.3 ENVIRONMENTAL CONSEQUENCES

This section analyzes the potential environmental effects from implementation of the proposed HCP Permit Covered Activities. Effects to land covers provide the context for analysis of effects on biological resources from implementation of the HCP. Therefore, in order to effectively correlate implementation of the HCP to potential effects on biological resources, the Service determined that use of the same land cover types would be appropriate. The Service provided review and input throughout development of the HCP and conducted an independent review of the HCP Permit Area land-cover polygons to confirm that the land-cover designations described in the proposed HCP were accurate.

This document assesses whether the proposed HCP Covered Activities are in compliance with NEPA; therefore, it will analyze the same land-cover classification that was developed by the proposed HCP, changes to land covers as a result of the proposed action, potential effects to common native species as a result of those changes, and the potential for the proposed action to contribute to the introduction and/or spread of noxious weeds. For the purposes of this analysis, the resource study area for direct and indirect impacts to land covers and common species comprises the HCP Permit Area.

Impacts to a land-cover type would be significant if the impacts would have a substantial effect, either directly or indirectly, on any of the land covers and common native plant and wildlife species discussed in Section 7.1, Affected Environment.

7.3.1 Methodology for Impact Analysis

Changes to land cover types were determined by using geographic information system (GIS) software to calculate the land covers under the changed condition and compare them to the land cover under existing conditions within the HCP Permit Area. For the No Action Alternative, the changed condition was assumed to be buildout of the area as provided by land use designations of the Tulare County General Plan. For the proposed action, the changed condition was calculated based on the permanent, temporary, and indirect effects footprint of the proposed action as described in the HCP.

Identifying the Threshold of Significance

For the purposes of this Environmental Assessment (EA), an alternative would have a significant impact on biological resources if it would:

- Have a substantial adverse effect on any natural vegetation communities
- Have a substantial adverse effect on any native plant and wildlife species population
- Contribute to the spread of invasive or noxious weeds.

7.3.2 No Action Alternative

Direct and Indirect Effects

Land Cover Types

Under the No Action Alternative (i.e., the future condition without the proposed HCP permit), the Cross Valley Transmission Line would not be constructed, and existing agricultural, urban, and open space land uses would continue. Existing land covers and natural vegetation would continue to undergo frequent disturbance associated with the agricultural and urban land uses, but effects from the Cross Valley Transmission Line would not occur.

New urban growth and development within the resource study area would continue to occur as prescribed by local regulations and planning documents. East of the Friant-Kern Canal, areas currently supporting natural land covers (including annual grassland and aquatic habitat) are within the Foothill Growth Management Plan and Rural Valley Lands Plan zoned for agriculture and mixed use (County of Tulare 2012) (Figure 7-2). West of the Friant-Kern Canal, the resource study area is zoned for agricultural uses, which is the primary land cover type in this portion of the HCP Permit Area. There is a possibility that future development may result in loss of natural vegetation communities east of the Friant-Kern Canal, including annual grasslands and riparian habitat, and/or indirect effects to natural vegetation communities. Future development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia and would be required to prepare California Environmental Quality Act (CEQA) documentation if

discretionary actions were proposed. Projects would be individually required to mitigate any potentially significant effects to natural vegetation communities; therefore, no significant adverse effect would result.

Invasive and Noxious Weeds

Under the No Action Alternative, new urban growth and development within the resource study area would continue to occur as prescribed by local regulations and planning documents, and could result in the spread or proliferation of invasive or noxious weeds. Future development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia and would be required to prepare CEQA documentation if discretionary actions were proposed. Local policies and regulations, including the Tulare County General Plan and City of Visalia General Plan, do not specifically address the management of invasive and noxious weeds. Furthermore, CEQA does not include a threshold specific to the management of invasive and noxious weeds. Because of federal Executive Order 13112, federal agencies are typically held to a higher standard than state and local agencies for management of invasive and noxious weeds. Development within the resource study area, particularly east of the Friant-Kern Canal, could result in the introduction of and/or contribute to the spread of invasive or noxious weeds that may not be adequately managed through implementation of local requirements. The potential remains for an adverse effect to natural land covers under the No Action Alternative.

Native Wildlife

Under the No Action Alternative, the Cross Valley Transmission Line would not be constructed, and therefore would not affect native wildlife or result in the removal of vegetation communities that serve as habitat for native wildlife. However, new urban growth and development within the resource study area would continue to occur as prescribed by local regulations and planning documents and could result in impacts to native wildlife. Specifically, natural land covers east of the Friant-Kern Canal could be converted to developed lands resulting in loss of habitat and individuals of common native species occurring in annual grassland, riparian habitat, and aquatic habitat. Future development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia and would be required to prepare CEQA documentation if discretionary actions were proposed. Projects would be individually required to mitigate any potentially significant effects to native wildlife; therefore, no significant adverse impact would result.

Determination

Under the No Action Alternative, foreseeable future development could result in direct and indirect effects to natural vegetation communities and native wildlife and could result in the spread of noxious weeds. With implementation of avoidance, minimization, and mitigation

measures that would be prescribed pursuant to CEQA and local regulations and policies, the No Action Alternative would not result in significant direct adverse effects to natural land covers or native wildlife. The No Action Alternative could contribute to the spread of invasive or noxious weeds, which could indirectly result in adverse effects to habitat for native species.

7.3.3 Proposed Action Alternative

7.3.3.1 Land Cover Types

The proposed action would result in permanent direct effects to land covers due to clearing and grubbing and grading activities related to construction of access roads and pads, footings, and foundations for the transmission line structures. Permanent direct effects would also result from grading activities associated with construction of work areas. Although these areas would be revegetated, they are considered to be permanent impacts since it will require greater than 12 months for these area to return to functional habitat. Temporary direct effects would occur within work areas that would not be graded but may require equipment access or placement of structures. Indirect effects would also occur due to increased human activity within the HCP Permit Area. Table 7-3 summarizes the total acres of permanent and temporary direct effects to land cover types under the proposed action, and Figure 7-3 depicts the location of these impacts within the HCP Permit Area. A discussion of direct and indirect effects to each land cover type is provided after the table.

Table 7-3
Total Acreage of Direct Effects Resulting from Covered Activities
Under Proposed Action Alternative

Existing Land Cover	Existing Acres	Permanent Direct Effects ¹	Temporary Direct Effects – Construction Covered Activities	Temporary Direct Effects – O&M Covered Activities	Total Temporary Direct Effects
Annual Grassland	1,048	40.96	34.78	17.62	52.40
Vernal pool/swale	7	0.14	0.14	0.08	0.22
Riparian	8	—	—	—	—
Riverine	10	—	—	—	—
Agricultural–Orchard	1,432	8.11	41.52	11.10	52.62
Agricultural–Vineyard	57	1.21	4.29	0.99	5.28
Agricultural–Row/Field Crops	324	2.33	9.26	2.84	12.10
Puddle	1	0.01	0.02	0.01	0.03
Basin/Stock Pond	12	—	—	—	—
Lined canal	7	—	—	—	—
Ditch	28	0.17	0.24	0.08	0.37
Developed	450	0.35	9.99	2.24	12.23
Total	3,385	53.28	100.24	34.96	135.25

¹O&M Covered Activities would not result in permanent direct effects

Direct Effects

Permanent, direct effects to land covers would occur from grading associated with the construction of roads and towers. Areas where the ground surface would be occupied by a constructed facility (facility footprints) would be maintained clear of vegetation for the duration of the proposed action and would result in a permanent effect for all land cover types that are impacted. Approximately 42.3 acres of facility footprints would remain permanently clear of vegetation. Of these 42.3 acres, 11.7 acres would occur within agricultural land covers, 30.0 acres within annual grassland, and 0.26 acres within aquatic land covers. Conservation strategies incorporated in the HCP include compensation for annual grassland (SJKF-7, BO-7, and CTS-5) and agricultural land cover (SJKF-7). Loss of vernal pools would be compensated through implementation of VP-3. A total of 0.01 acre of puddles would be lost as a result of the proposed action; puddles are dynamic by nature and occur in roadside ditches, agricultural fields, and depressions. This land cover is unvegetated and does not provide substantial habitat for common native species. Loss of this land cover is not a significant adverse effect except where it supports special-status species, which is addressed in Chapter 8.

Temporary direct effects would occur within work areas that would not be graded but may require equipment access or placement of temporary structures. Trampling of vegetation within work areas would be associated with construction activities such as vehicle and other equipment access and operation, storage of materials, assembly of structures, and any other activities occurring outside of the facilities' footprints. Temporary direct effects would also result from Class 2 operations and maintenance (O&M) activities that would be conducted in part outside of pads and the drivable surface of roads, and would disturb natural vegetation and soils in those areas. These activities include major structure repair, structure replacement, major conductor and optical ground wire repair, repair/replacement of bird flight diverters, access road maintenance, maintenance of the drainage system, installation of stormwater pollution prevention plan best management practices, tree pruning, and brush and weed abatement. Construction and O&M Covered Activities would result in temporary, direct effects to 135.3 acres of land covers, including 52.4 acres of annual grassland, 0.22 acre of vernal pool/swale, and 70.0 acres of agricultural land cover. There would also be temporary effects to 0.37 acre of ditch and 12.23 acre of developed land covers; however, these land covers are frequently disturbed by existing activities, provide limited functional habitat or habitat that is the result of post-disturbance recovery, and are resilient to comparable disturbances in the future. Therefore, the direct effects of disturbance in work areas within these land cover types are not considered to be a significant adverse impact. Implementation of species conservation strategies would compensate for temporary effects to annual grassland (CTS-5, BO-4, SJKF-7), vernal pools (VP-3), riparian (Nesting Bird-2) and

agricultural (SJKF-7) land covers. Furthermore, land covers would be restored from temporary effects during O&M activities through revegetation (O&M-12).

With implementation of the conservation strategy, the proposed action would not have a substantial direct effect on any natural vegetation community.

Indirect Effects

Potential short-term or temporary indirect effects to natural land covers in the HCP Permit Area would result from both construction and O&M activities and include effects related to or resulting from the generation of fugitive dust and the introduction of pollutants (including chemical and sediment) into aquatic habitats. Potential long-term or permanent indirect effects to land covers include changes in hydrology, including sedimentation and erosion; introduction and spread of invasive or noxious weeds; increased use by humans resulting in potential vegetation disturbance and soil compaction from pedestrian or off-road vehicle trails; and alteration of the natural fire regime. The proposed action includes conservation strategies that would reduce potential adverse indirect effects to land covers. Indirect effects would be minimized through implementation of an environmental awareness training (C-1, O&M-2), restricting vehicle speeds (C-4), implementing a noxious weed and invasive plant control plan (C-6, O&M-14), implementation of a fire prevention and control plan (C-7), restrictions on equipment fueling and maintenance (C-8, O&M-9), erosion control (C-9), constructing locking gates on access roads (C-11), avoidance of sediment loading near waterways (PD-3), preparation of an operation and maintenance environmental compliance plan (O&M-1), and conducting environmental screening processes (O&M-4).

With implementation of the conservation strategy, the proposed action would minimize potential indirect effects to natural vegetation communities such that it would not result in a significant adverse impact.

7.3.3.2 Invasive and Noxious Weeds

The proposed action could result in the spread of invasive or noxious weeds already located within the HCP Permit Area to other areas, as well as cause the introduction of new Class A and B noxious weeds into the HCP Permit Area. Exotic, invasive species can displace or replace native plant and animal species, disrupt nutrient cycles, and cause changes in the patterns of plant succession. The spread of noxious weeds located within the HCP Permit Area to areas outside of Tulare County or the introduction of new Class A and B noxious weeds to Tulare County could also impact existing crops and pasture lands.

A Noxious Weed and Invasive Plant Control Plan has been prepared for the proposed action and includes measures to identify and control potentially noxious weeds and invasive plants

within the Cross Valley corridor. The following weed control elements are recommended by the plan to mitigate temporary habitat impacts resulting from infestations of noxious weeds and invasive plants:

- Prevention – Apply best practices to eliminate the transport of Class A and B noxious weed propagules and minimize conditions conducive to the establishment of new infestations.
- Containment – Prevent infestation spread, but not necessarily density, until suppression or eradication can be implemented.
- Suppression – Reduce infestation density, but not necessarily infestation area, where eradication of widely distributed or high-density weeds is infeasible.
- Eradication – Eliminate all individuals of a weed species within a specified area where the population size is manageable. Applying complete eradication objectives for ubiquitous weed populations is infeasible.

Compliance with the Noxious Weed and Invasive Plant Control Plan (C-6; O&M-14) would reduce effects related to invasive or noxious weeds such that they would not result in a significant adverse effect.

7.3.3.3 Native Wildlife

This discussion is intended to address potential effects to common, non-special-status species in the HCP Permit Area as a result of effects to land covers. As such, the analysis of impacts to native wildlife is necessarily generalized and is not intended to address specific or unique effects to a particular species.

Annual Grassland and Agricultural Land Covers

Direct Effects

Construction activities, such as construction of new access roads, laydown yards, and spur roads; improvement of existing access roads; and grubbing activities that remove surface vegetation and underground roots would directly affect native wildlife through direct disturbance of their habitat as well as potential impacts to individuals. Conservation strategies incorporated in the HCP include compensation for annual grassland (SJKF-7, BO-7, and CTS-5) and agricultural land cover (SJKF-7); therefore, common native species in the region would not experience a substantial loss of habitat. Due to the narrow, linear nature of the footprint of the proposed action and the presence of annual grassland and agricultural land covers surrounding the HCP Permit Area, common native species using annual grassland and agricultural land covers would have ample habitat to move into during construction and O&M Covered Activities, thereby avoiding direct impacts. Although some individuals may be killed or injured during Covered Activities,

the mortality of a few common native species would not have a substantial adverse effect on the local population of that species.

Rodent and/or reptile burrows enclosed within the root systems of vegetation could also be damaged. Blading and grading to remove potholes, ruts, and other surface irregularities after grubbing could potentially collapse rodent burrows, injuring or entombing animals in the process. Additionally, the disruption caused by these activities may force burrow dwelling species such as rodents and reptiles out of their burrows and consequently be injured or terminated by heavy equipment and/or vehicles. Incorporation of the conservation strategy, including avoidance of burrows (CTS-4), environmental awareness training (O&M-2), and conducting pre-activity surveys and monitoring for Class 2 O&M activities (O&M-5) would reduce the potential for effects to burrows on site such that the proposed action would not result in a significant adverse effect to common native wildlife in burrows.

During construction of transmission lines and associated structures, there is potential for entrapment of wildlife in TSP and additional holes if not covered properly during construction periods. Implementation of the conservation strategy, including avoidance of burrows (CTS-2), covering of excavated holes and trenches (WSFT-2, SJKF-3), and inspecting and covering open materials and equipment (SJKF-4) would avoid entrapment of native wildlife.

In the event that nighttime work should occur, foraging patterns of bats could be interrupted. Implementation of Environmental Commitment (EC) AES-4 would reduce this potential affect such that it would result in a significant adverse effect.

Indirect Effects

Construction activities, such as a grading and earthwork associated with the proposed action, could potentially lead to short-term indirect effects on native wildlife within the HCP Permit Area. These activities can result in construction-generated dust, noise, and nighttime lighting, as well as increased human use of the HCP Permit Area. Fugitive dust resulting from grubbing could potentially impact common insect species such as beetles, flies, wasps, and grasshoppers. However, implementing the conservation strategy including environmental awareness training (C-1), restrictions on vehicle speeds and travel (C-4), restrictions on equipment fueling and maintenance (C-8), erosion control (C-9) would reduce indirect effects to native wildlife. Additionally, implementation of EC AQ-1, EC AQ-2, EC PH-3, EC, EC NOI-, EC NOI-1b, and AES-4 would reduce potential effects from dust, noise, and nighttime lighting such that significant adverse effects to common wildlife would not occur.

Potential long-term or permanent indirect effects to native wildlife as a result of ongoing O&M activities associated with the proposed action include invasion of non-native species, habitat fragmentation, increased human activity, and alternation of the natural fire regime.

Construction of new access roads could result in a permanent increase in the amount of traffic in the HCP Permit Area by local people; traffic in the HCP Permit Area would also increase due to O&M activities. Increased vehicle traffic could lead to more collisions with wildlife. Also, increased availability and use of roads could displace native wildlife. Implementation of the conservation strategy, including preparation of an O&M environmental compliance plan (O&M-1), environmental awareness training (O&M-2), preparation and implementation of a noxious weed and invasive plant control plan (C-6, O&M-14), implementation of a fire prevention and control plan (C-7), and constructing locking gates on access roads (C-11), would reduce potential indirect effects to native wildlife such that they would not result in a significant adverse impact.

Aquatic Land Covers

Direct Effects

The proposed action would result in the loss of 0.32 acre of aquatic habitat (including 0.14 acre of vernal pool/swale, 0.01 acre of puddles, and 0.17 acre of ditches), which is less than 1% of aquatic land covers within the HCP Permit Area. Conservation strategies incorporated in the HCP include compensation for loss of vernal pools (VP-3) such that the proposed action would not result in significant adverse effects to common native species from loss of vernal pool habitat. Because of the relatively small amount of habitat loss of puddles and ditches, direct effects to common native species from loss of this habitat would be adverse but not significant.

Direct effects to aquatic land covers could result in death or injury to amphibian and common native branchiopods; however, this would not substantially affect the abundance and distribution of these species within the HCP Permit Area or immediate vicinity. Loss of individuals would be adverse but not significant.

Indirect Effects

The proposed action would result in indirect effects to aquatic habitat, particularly vernal pools and puddles. Indirect effects could occur from alteration of the watershed, water degradation, and introduction of invasive species including noxious weeds. Alteration of the watershed would occur from placement of pads and structures and associated water control structures upstream of a vernal pool or puddle that would change the surface flow to the feature. Water degradation may occur from inadvertent release of pollutants, such as fuels and lubricants, due to leakage from construction equipment or from increased erosion and deposition of sediment. Spread of invasive or noxious weed may occur by introducing seed from other sites via vehicles and construction equipment. The creation of access roads could increase public access to the HCP Permit Area. Increased use of the area would further contribute to adverse indirect effects to aquatic habitat by providing additional mechanisms for release of pollutants and invasive species, increasing soil

disturbance in the watershed of a water feature resulting in increased sedimentation to the pool, and soil disturbance within the pool.

The proposed action includes conservation strategies that would reduce potential adverse indirect effects to common native wildlife using aquatic habitat, including avoidance of sediment loading near waterways (PD-3), restricting vehicle speeds (C-4), implementing a noxious weed and invasive plant control plan (C-6), restricting equipment fueling and maintenance near waterways (C-8), controlling erosion near waterways (C-9), and constructing locking gates on access roads (C-11).

Riparian and Riverine Land Covers

The proposed action would not result in any permanent or temporary direct effects to riparian land covers. Potential indirect effects would be the same as those described above for annual grassland, agricultural, and aquatic land covers.

Migratory Birds and Birds of Conservation Concern

Suitable nesting habitat occurs throughout the HCP Permit Area as described in Section 7.1.3. The proposed action has the potential to result in direct effects to nesting birds through inadvertent removal of nests during construction and O&M activities. Additionally, dust, noise, increased human presence, and nighttime lighting could affect breeding bird behavior resulting in the failure of a nest. There is also potential for birds to nest amongst staging equipment and materials in laydown yards. Ground-nesting species such as killdeer and cavity-nesting species such as violet-green swallow and American kestrel could establish nests that would be crushed or destroyed by the movement of vehicles and equipment within the laydown yard. Furthermore, human activity (disposal of trash, etc.) in these areas could attract predators such as raccoon (*Procyon lotor*) and American crow that would pose a threat to nesting species. Incorporation of the conservation strategy, including implementation of nesting bird avoidance (Nesting Bird-2) and removal of trash (C-10) would reduce the potential for impacts to nesting birds such that they would not result in a significant adverse impact.

The HCP Permit Area supports suitable habitat for species designated as Birds of Conservation Concern. Potential adverse effects specific to these species are addressed in Chapter 8.

Determination

The proposed action would result in direct and indirect effects to land covers and common native species. With incorporation of the conservation strategy, the Service determines that these effects would have a substantial adverse effect on any natural vegetation communities or population of common native species; therefore, these effects are determined to be not significant by the Service. Additionally, with implementation of the Noxious Weed Management Plan, the

proposed action would not contribute to the spread of invasive or noxious weeds; therefore, there would be no significant adverse effects with regard to noxious weeds.

7.3.3.4 Cumulative Effects of the Proposed Action

The geographical context of the cumulative resource study area includes land covers as mapped by National Gap Analysis Project (GAP) (USGS 2011) in northwestern Tulare County that support common biological resources.

Covered Activities of the proposed action would result in permanent and temporary direct and indirect effects to land covers and habitat for common native species; however, implementation of the conservation strategy would reduce potential adverse effects such that they would not be significant.

Reasonably foreseeable projects would primarily affect agricultural and developed land covers (Figure 7-4). Maintaining agricultural uses in the region is a goal of local planning documents and policies; therefore, future projects would have to comply with these goals to maintain agricultural uses. Furthermore, the proposed action would not result in a substantial reduction in agricultural land cover. Of the reasonably foreseeable future projects, only Project 75 (Yokohl Ranch, see Figure 7-4) would affect a large area of grassland/herbaceous land cover and in and of itself may significantly contribute to adverse effects to this land cover; however, the contribution of the proposed action to the cumulative effect is negligible. With integration of the conservation strategy, the proposed action's contribution to the cumulative adverse effect to natural land covers would not be cumulatively considerable.

With implementation of the Noxious Weed Management Plan, the proposed action would not contribute to the spread of invasive or noxious weeds. Construction activities as well as the disturbance of natural vegetation associated with other reasonably foreseeable cumulative projects could result in the spread of noxious weeds or the introduction of new weeds to Tulare County. However, reasonably foreseeable future projects would also be required to prepare and comply with plans to identify and control noxious weeds, and therefore the proposed action in combination with other projects would not contribute to a cumulatively considerable introduction or spread of invasive or noxious weeds.

Reasonably foreseeable projects would directly and indirectly adversely affect common native wildlife. The proposed action incorporates measures that would reduce potential affects to native wildlife such that they are not significant; therefore, the proposed action's contribution to the cumulative adverse effect to common native wildlife would not be cumulatively considerable.

Determination

The Service evaluated the past and present effects on biological resources as summarized in Section 7.3, Environmental Consequences. Then the Service evaluated the effects of the reasonably foreseeable other projects, as summarized in Chapter 3, Introduction to the Resource Chapters and the Effects Analysis. Finally, we added the incremental effects of the proposed action, as described in Section 7.3, to those other effects. We conclude that the small incremental effects of the proposed permit action and HCP, when added to the effects of the past, present, and reasonably foreseeable future projects on the biological resources in the resource study area, do not meet the identified thresholds of significance and are not considered significant.

7.4 REFERENCES CITED

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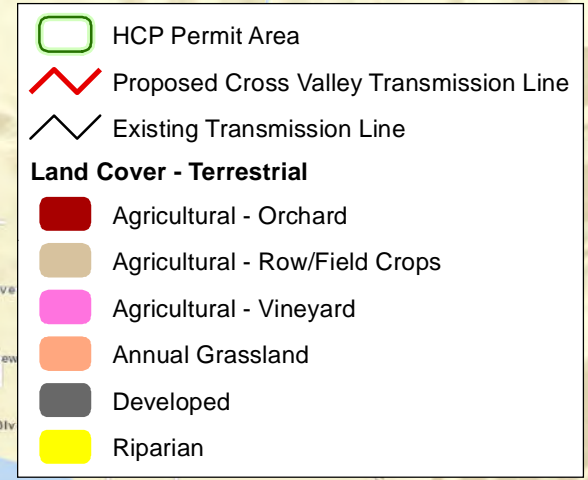
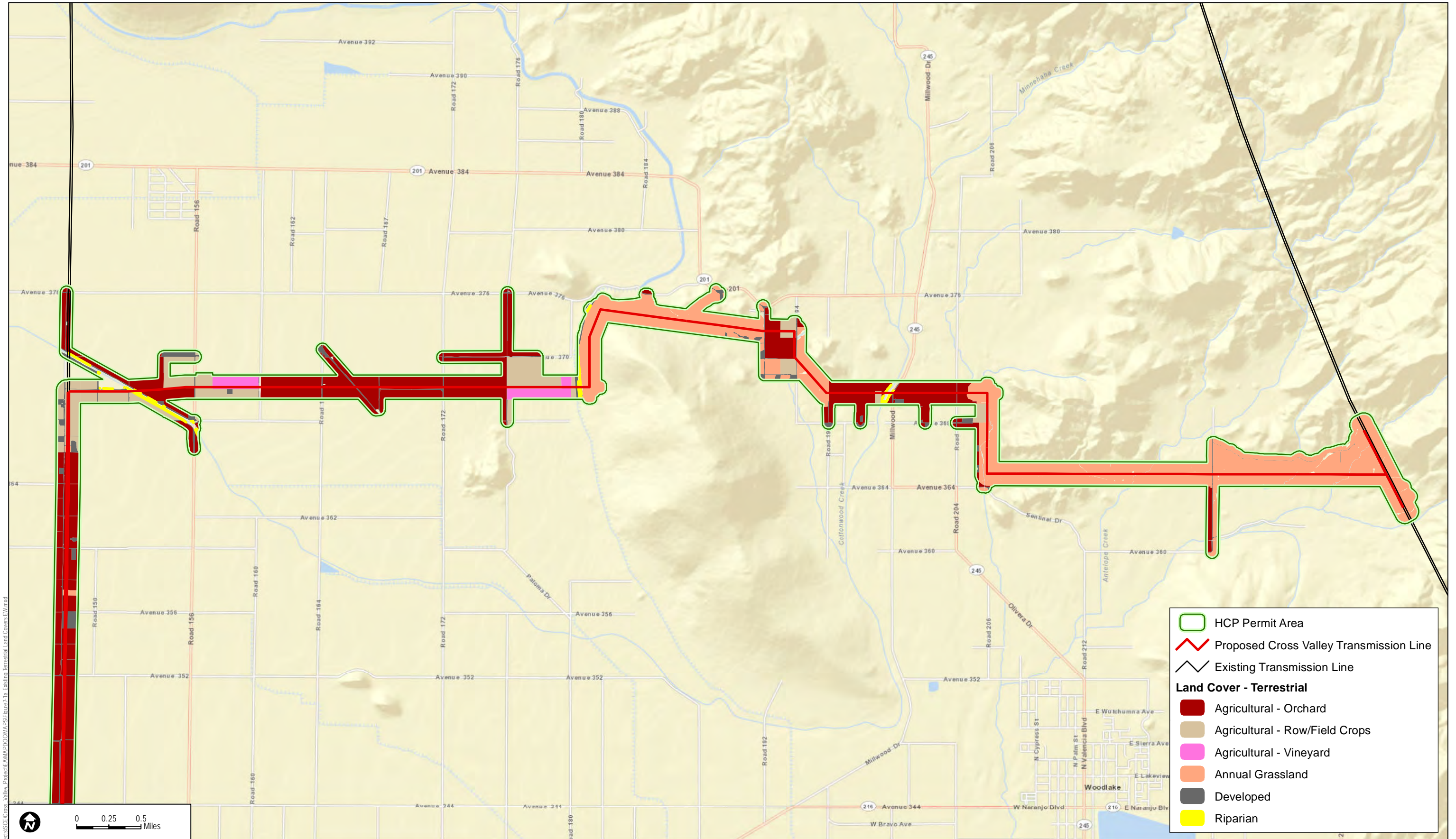
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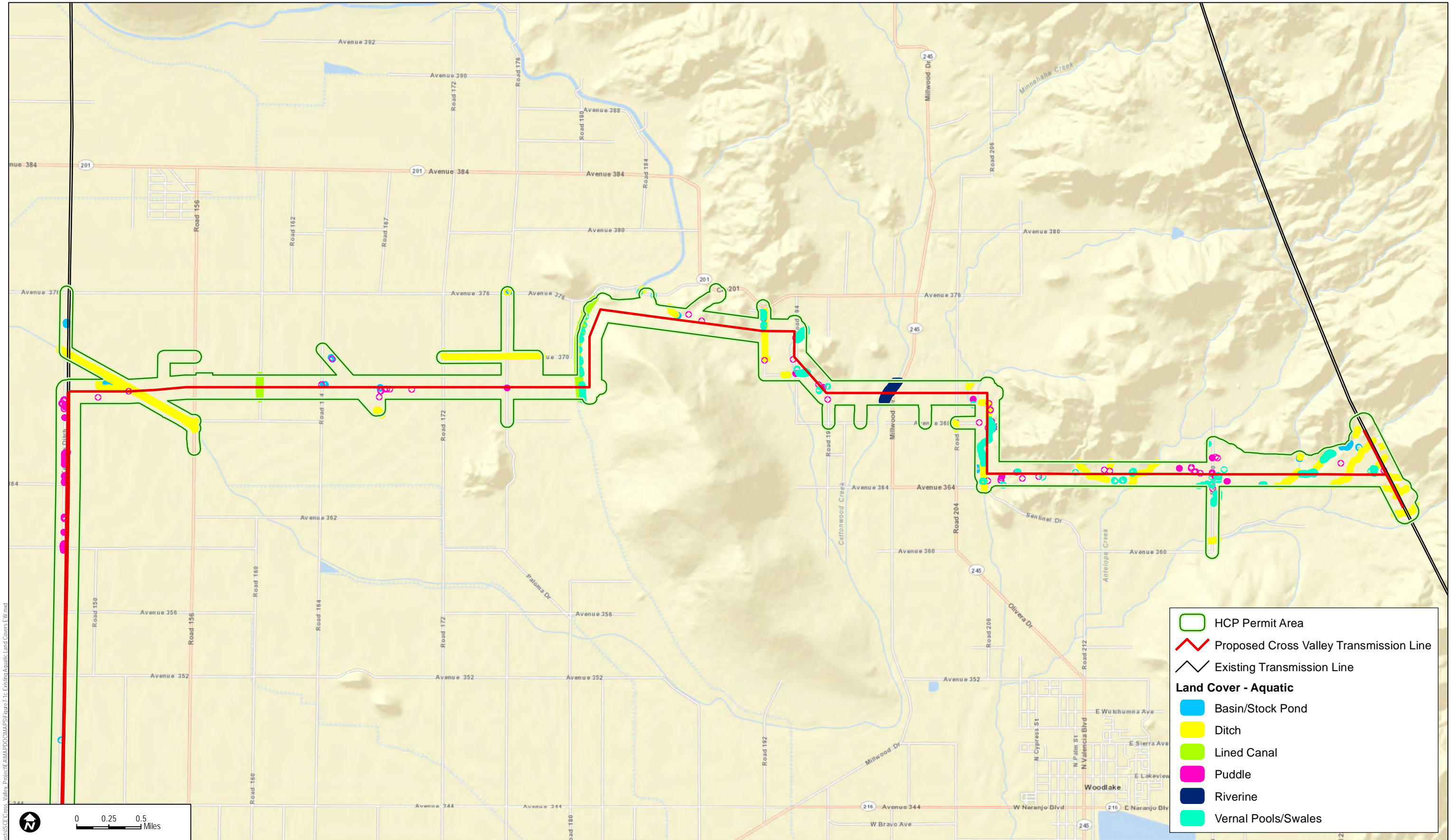


SOURCE: SCE 2013, ESRI Online

FIGURE 7-1a
Existing Terrestrial Land Covers (E-W Alignment)

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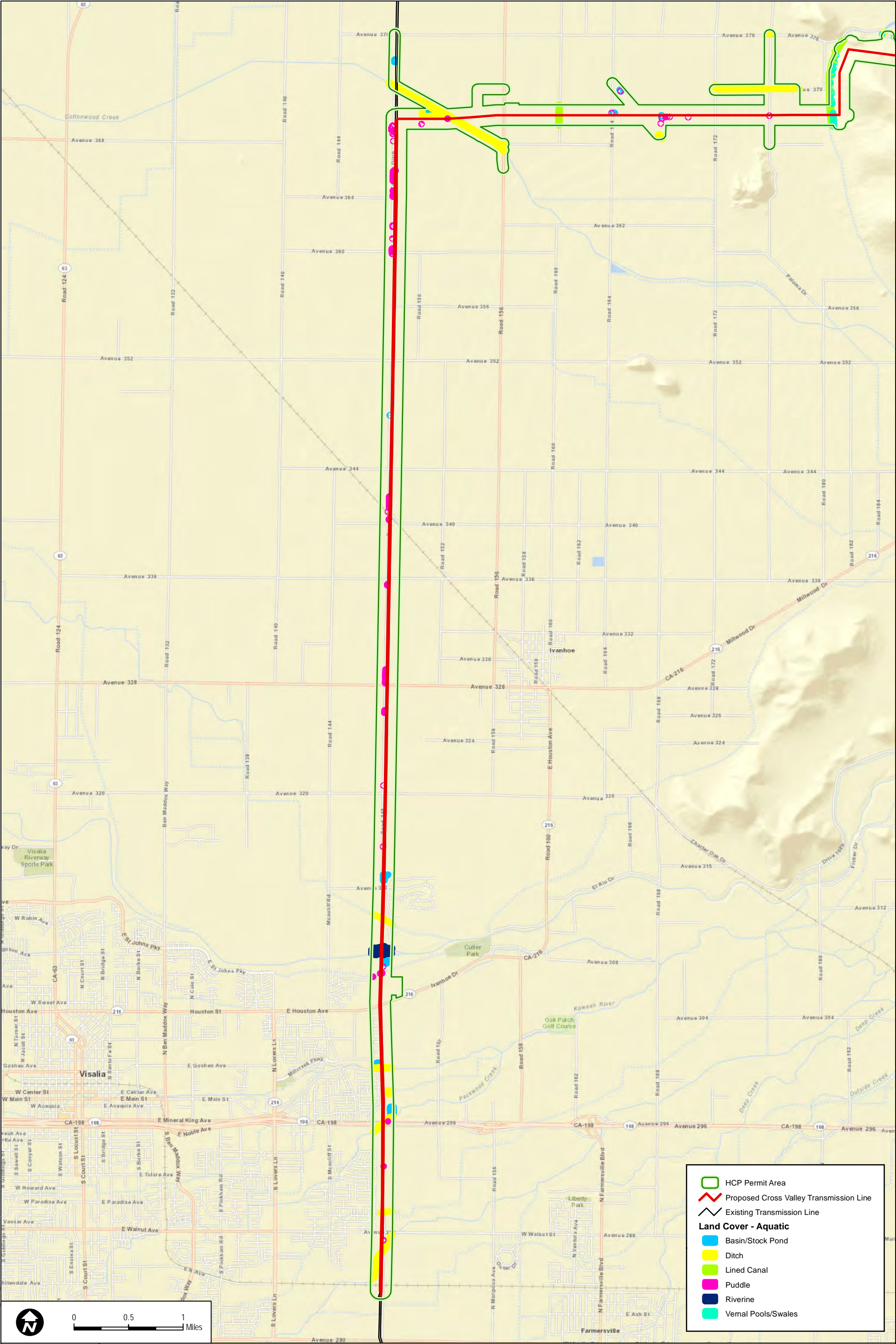
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SOURCE: SCE 2013, ESRI Online

FIGURE 7-1c
Existing Aquatic Land Covers (E-W Alignment)

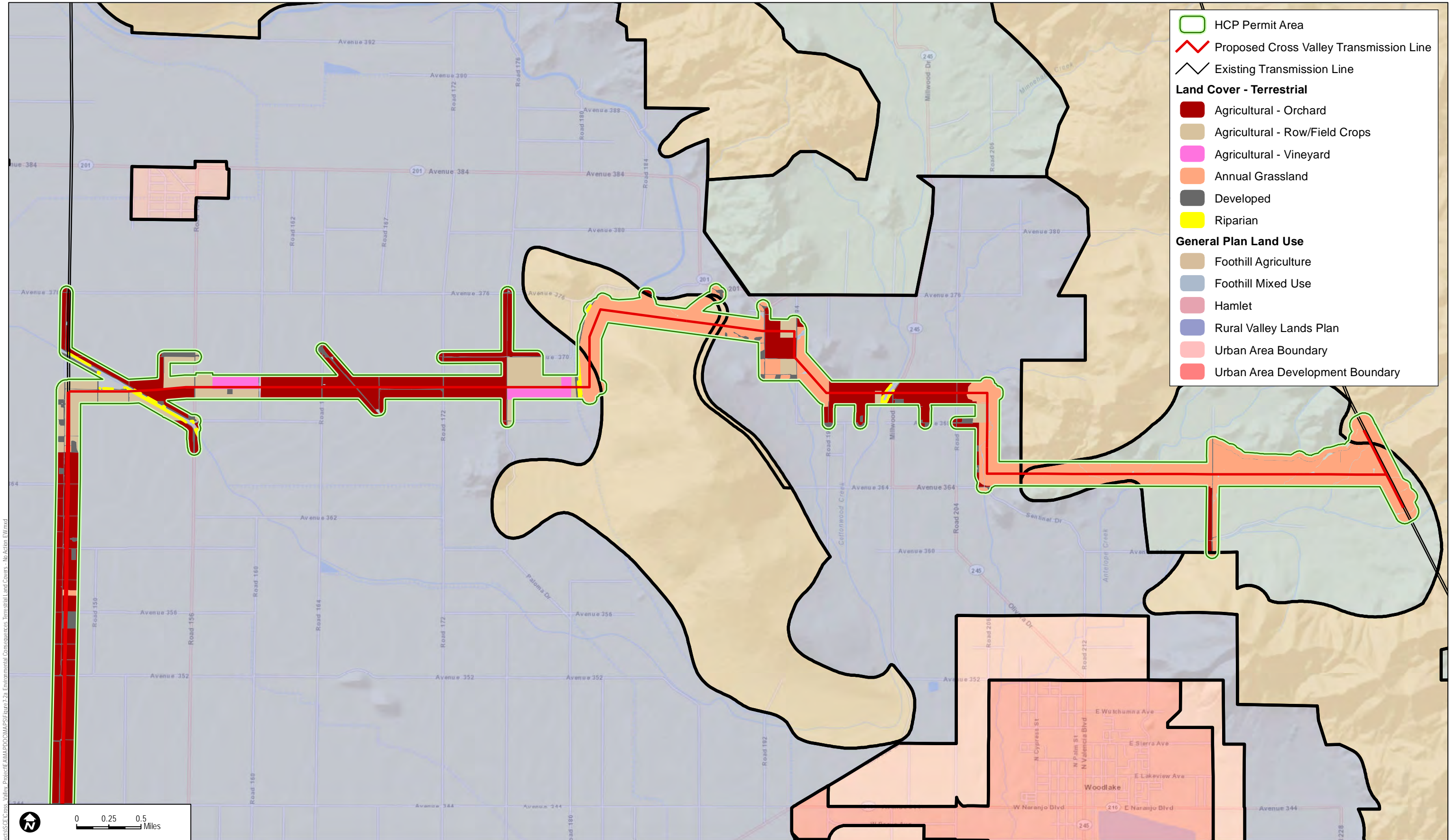
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SOURCE: SCE 2013, ESRI Online

FIGURE 7-1d
Existing Aquatic Land Covers (N-S Alignment)

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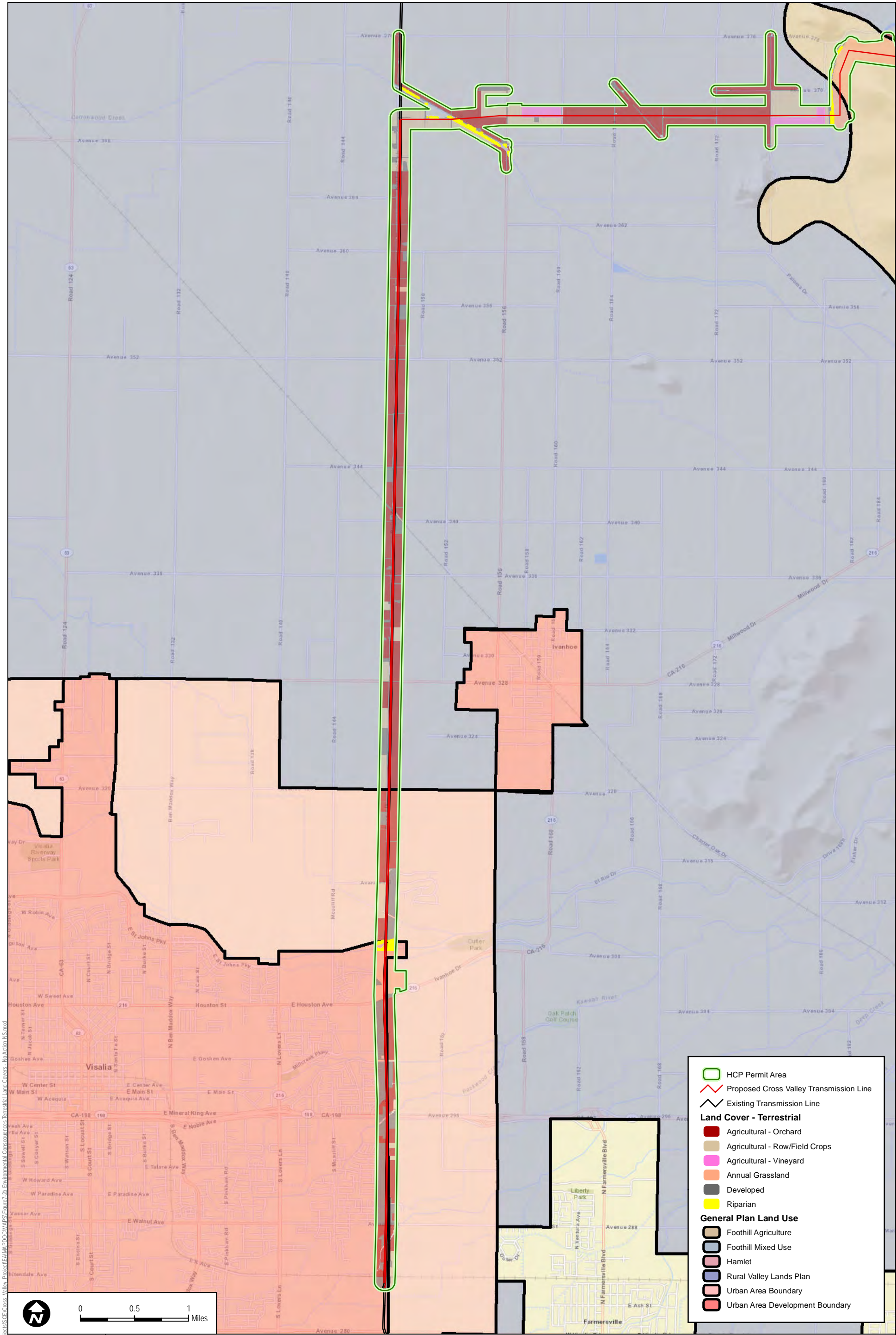


SOURCE: SCE 2013, Tulare County, ESRI Online

FIGURE 7-2a

Environmental Consequences Terrestrial Land Covers (E-W Alignment)

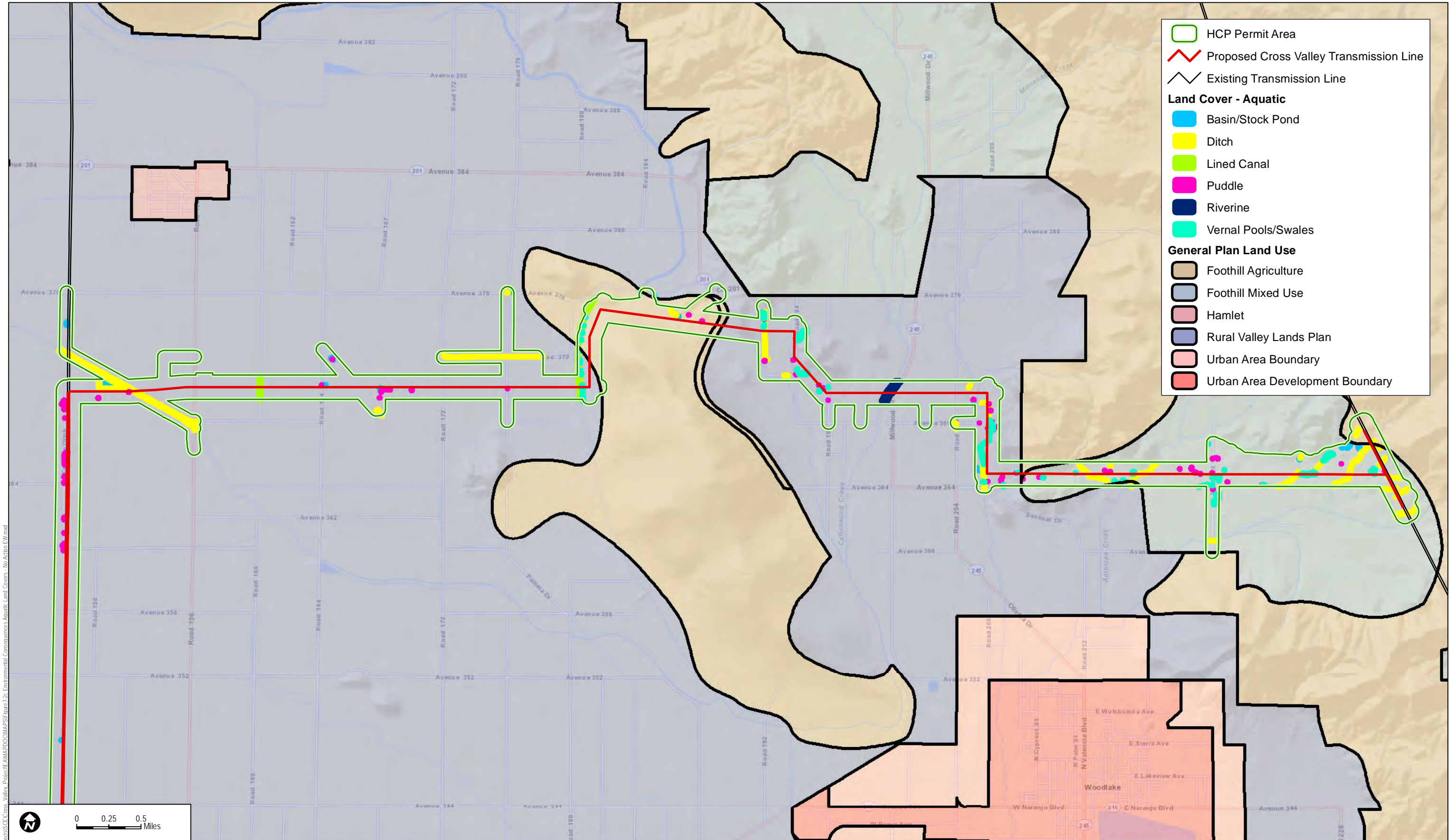
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SOURCE: SCE 2013, Tulare County, ESRI Online

FIGURE 7-2b
Environmental Consequences Terrestrial Land Covers - No Action (N-S Alignment)

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SOURCE: SCE 2013, Tulare County, ESRI Online

FIGURE 7-2c

Environmental Consequences Terrestrial Land Covers - No Action (E-W Alignment)

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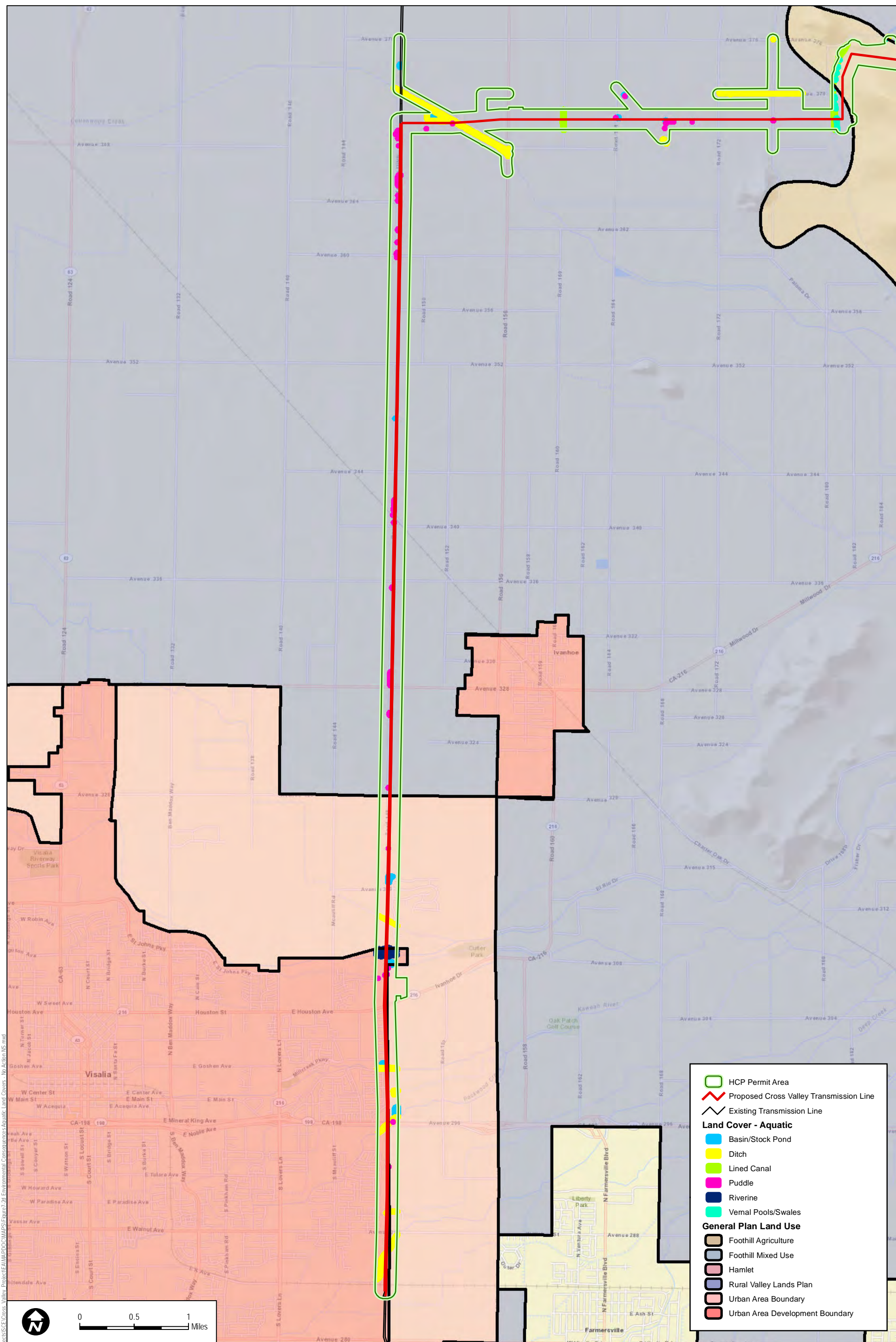


FIGURE 7-2d

Environmental Consequences Aquatic Land Covers - No Action (N-S Alignment)

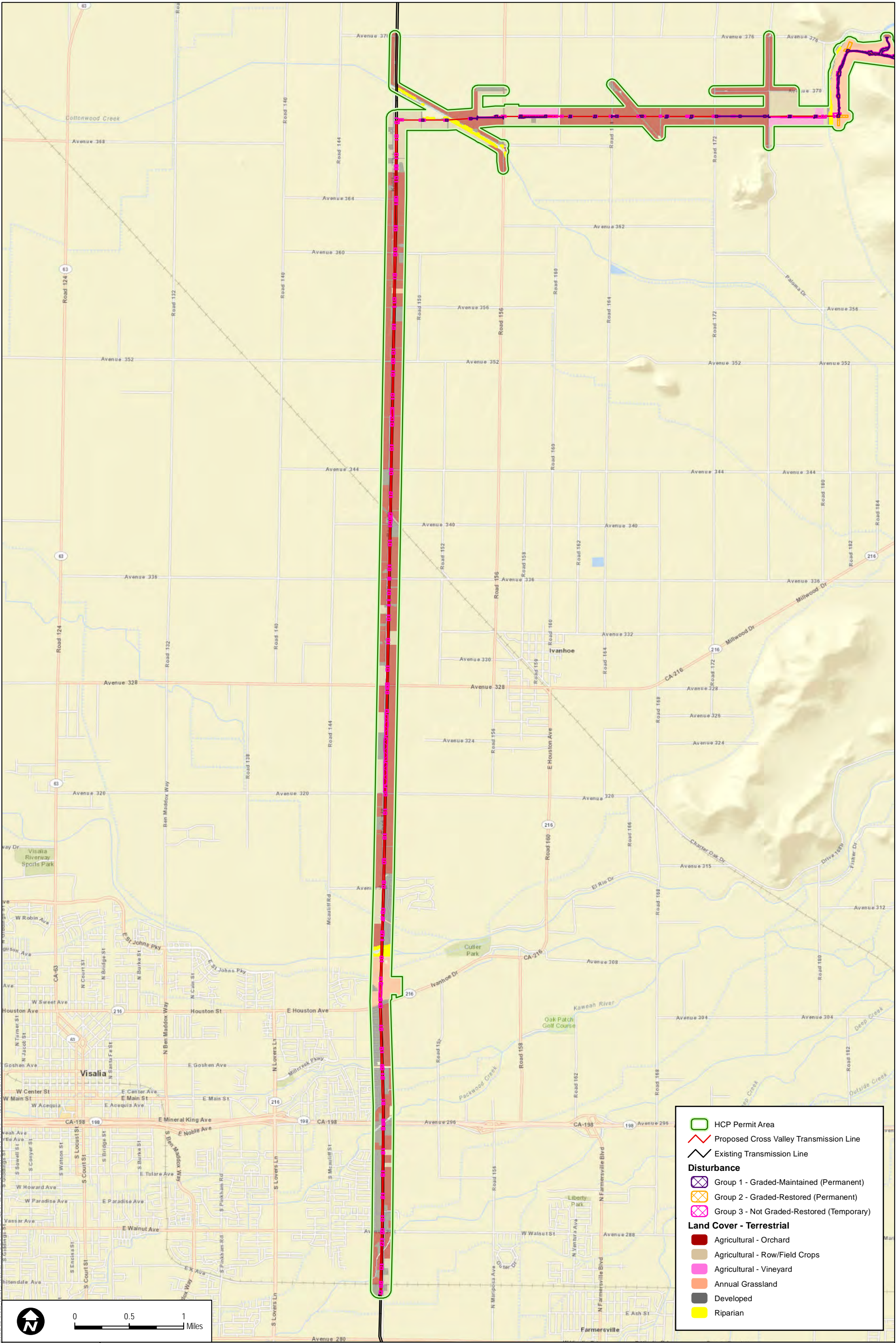
SOURCE: SCE 2013, Tulare County, ESRI Online

EA

CROSS VALLEY TRANSMISSION LINE HABITAT CONSERVATION PLAN ENVIRONMENTAL ASSESSMENT

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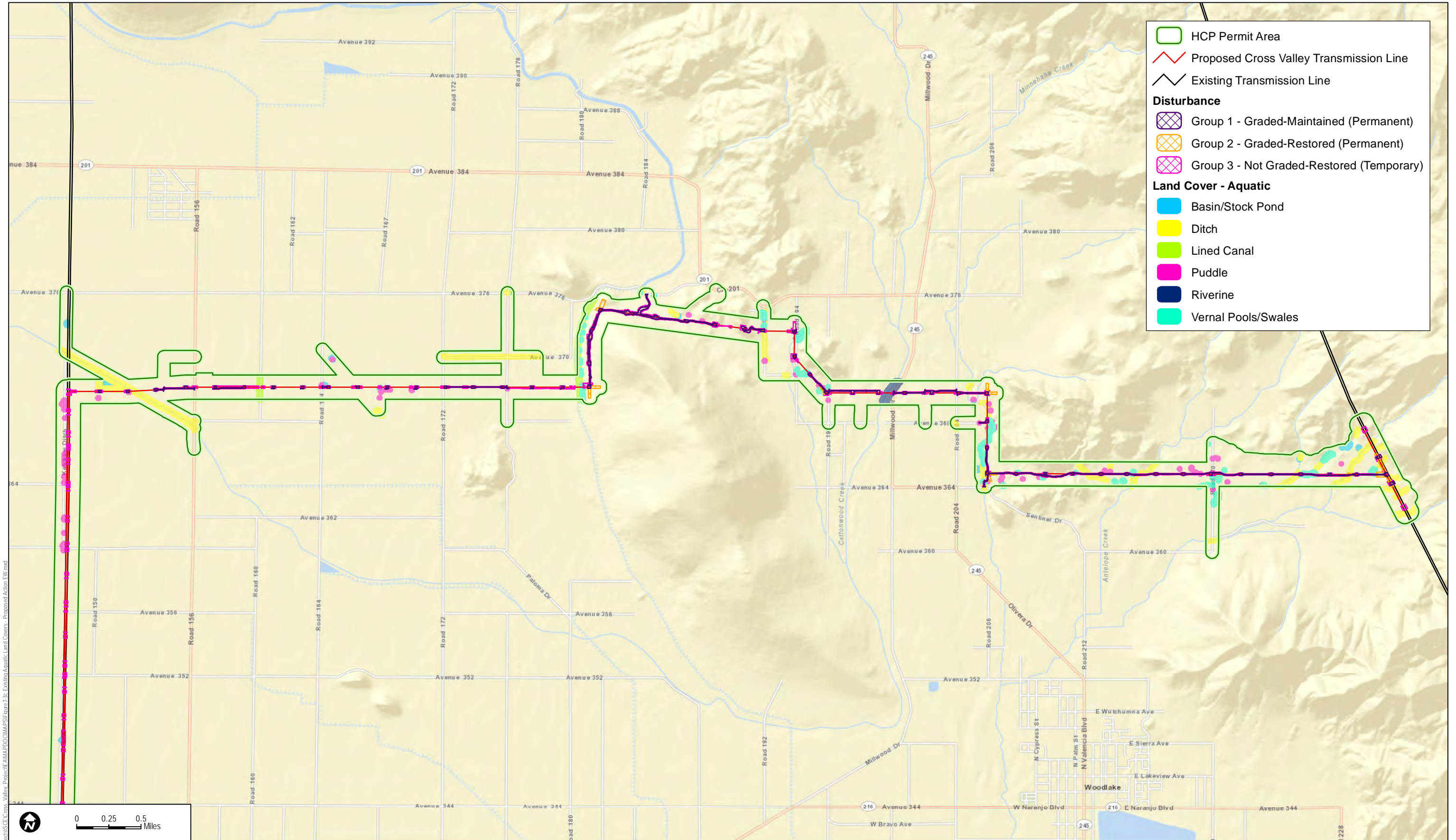
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SOURCE: SCE 2013, ESRI Online

FIGURE 7-3b
Environmental Consequences Land Covers - Proposed Action (N-S Alignment)

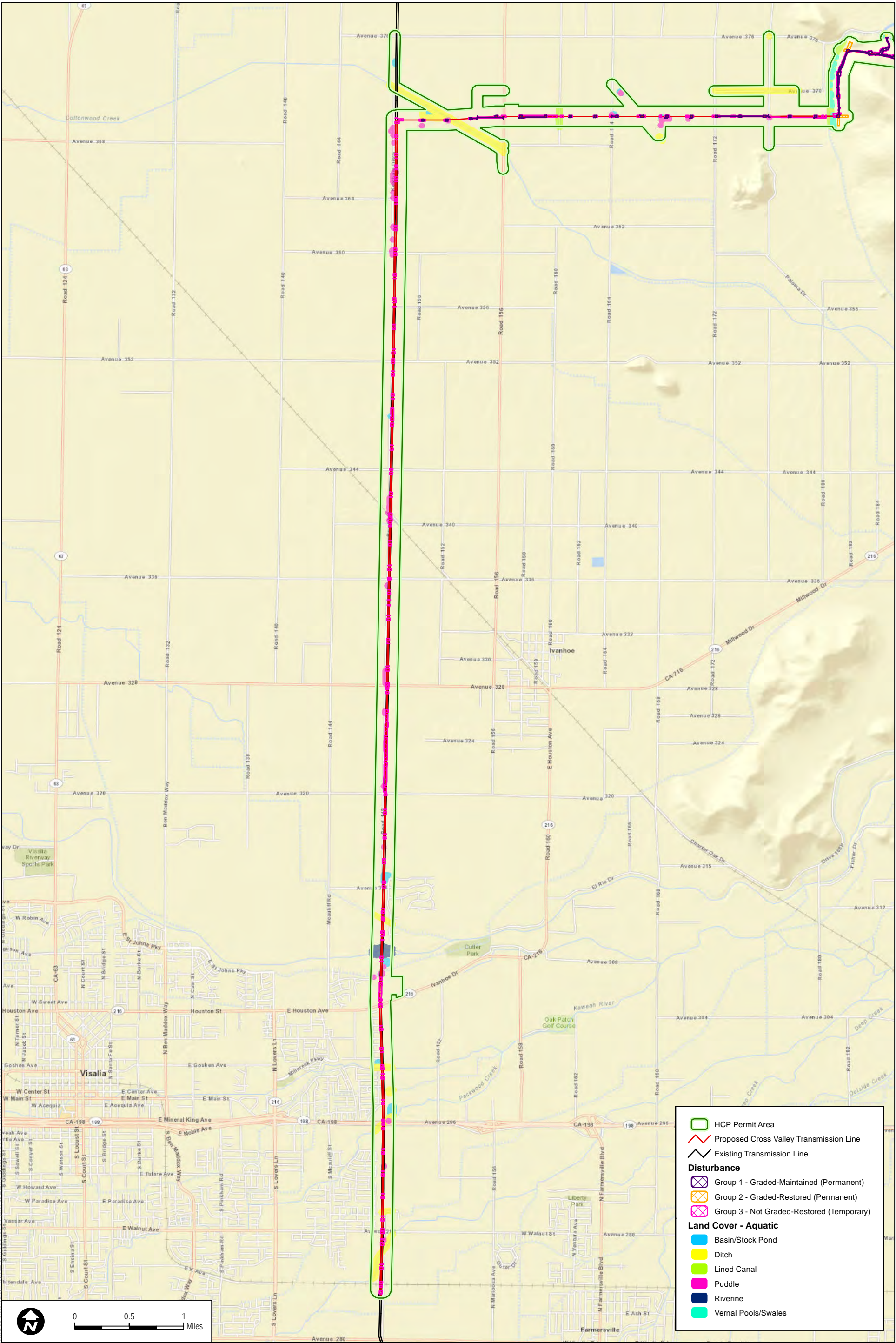
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SOURCE: SCE 2013, ESRI Online

FIGURE 7-3c
Environmental Consequences Land Covers - Proposed Action (E-W Alignment)

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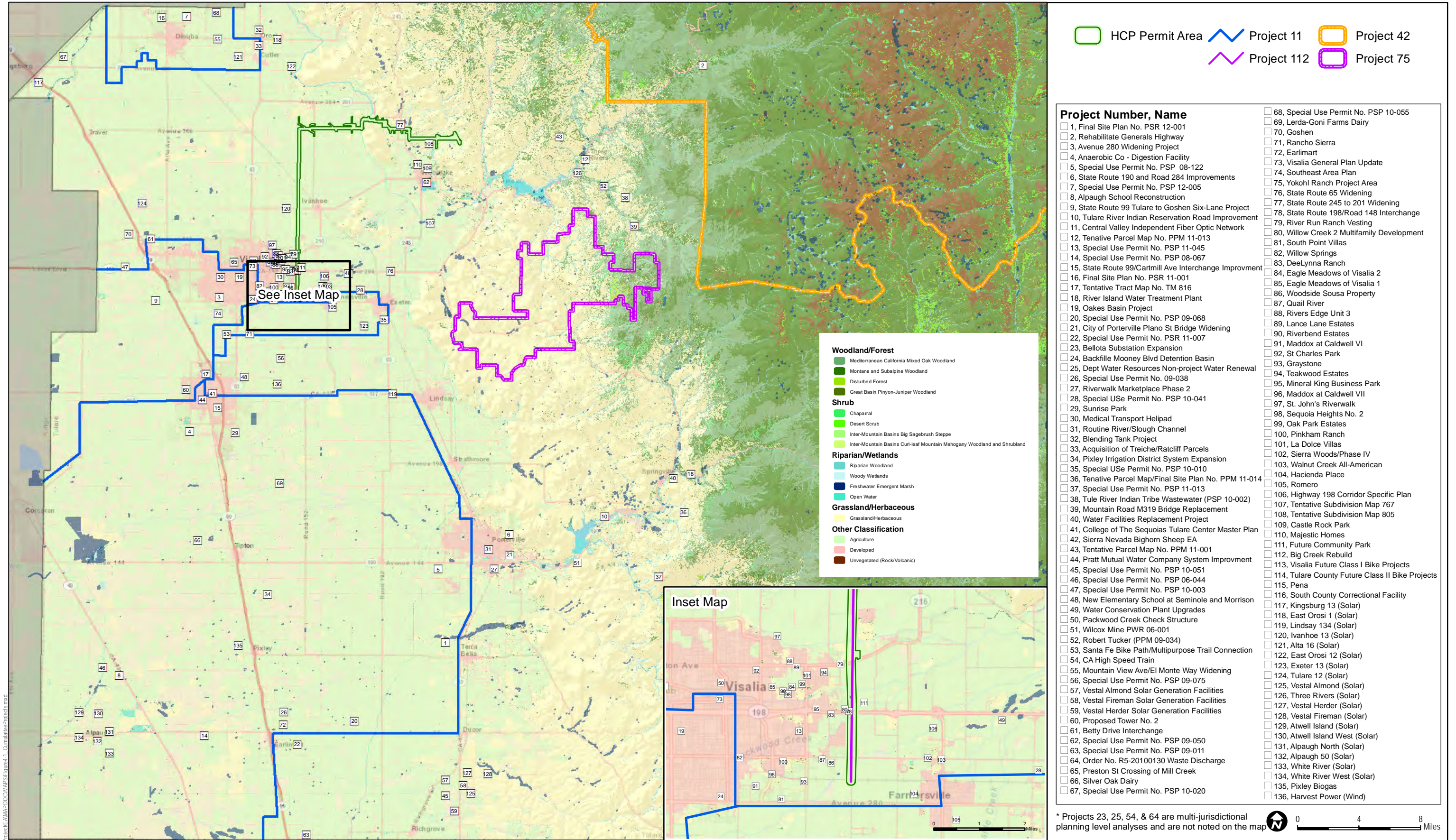
SOURCE: SCE 2013, ESRI Data 2010, Tulare CO

FIGURE 7-3d

Environmental Consequences Land Covers - No Action (N-S Alignment)

CROSS VALLEY TRANSMISSION LINE HABITAT CONSERVATION PLAN ENVIRONMENTAL ASSESSMENT

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SOURCE: SCE 2012, Tulare County 2011, ESRI Online

FIGURE 7-4

Land Cover - Cumulative Effects

EA

CROSS VALLEY TRANSMISSION LINE HABITAT CONSERVATION PLAN ENVIRONMENTAL ASSESSMENT

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8.0 BIOLOGICAL RESOURCES – SPECIAL-STATUS SPECIES

This chapter analyzes the effects of each alternative on special-status species, including the Habitat Conservation Plan (HCP) Covered Species that might occupy or utilize the HCP Permit Area for breeding, feeding, or sheltering behaviors over the proposed 30-year permit term. Public and agency comments received during early public scoping are incorporated by reference and considered in this analysis (see Sections 1.3, Public and Agency Involvement, and 1.4, Relationship of EA to Other Environmental Documents).

8.1 METHODOLOGY

For the purposes of this analysis, the study area for direct and indirect impacts to land covers and common species comprises the HCP Permit Area. Special-status species are native species that are afforded extra protection or considered to be locally important based on one or more of the following five criteria:

1. Listed as threatened or endangered, are candidates, or are proposed for listing under the California Endangered Species Act (CESA) or federal Endangered Species Act (ESA);
2. Designated as a Bird of Conservation Concern by the Service (Service 2008);
3. Identified as Fully Protected under California Fish and Game Code (Fish and Game Code Sections 3511, 4700, 5050, and 5515);
4. Identified as a Species of Special Concern by the California Department of Fish and Wildlife (CDFW) (CDFG 2011); and
5. A plant species designated by the California Native Plant Society (CNPS) to be “rare, threatened, or endangered in California” (i.e., California Rare Plant Ranks (CRPR) 1A, 1B, and 2) (CNPS 2012).

The U.S. Fish and Wildlife Service (Service) identified special-status species with a potential to occur in the HCP Permit Area by first compiling a list of species occurring in the region based on a query of databases and available literature. This list is provided as Appendix B to this Environmental Assessment (EA). The Service then made a determination of the potential for each species to occur within the HCP Permit Area based on presence/absence of suitable habitat within the HCP Permit Area for each species and results of surveys conducted by Southern California Edison (SCE) for the Cross Valley Loop Project Environmental Impact Report (EIR).

This chapter analyzes those special-status species with potential to be affected by any HCP alternative. Direct effects were quantified using geographic information system (GIS) software to overlay the geographic extent of permanent and temporary effects on critical habitat, occupied habitat, and/or suitable habitat as relevant for each species. Permanent effects included areas where permanent structures or roads would be constructed. Additionally, work areas that would

be cleared, grubbed, and later revegetated were also calculated as permanent effects as it would require greater than 12 months from the time of impact to the time the area is restored to functional habitat. Temporary direct effects included work areas used for equipment access, storage, or placement of temporary structures where vegetation may be crushed but not clearing or grubbing would occur.

For terrestrial species, indirect effects were assessed qualitatively by taking into consideration the potential for effects from those Covered Activities that would occur in proximity to critical habitat, occupied habitat, and/or suitable habitat for each species.

For aquatic species, potential indirect effects resulting from changes in hydrology can be determined through a hydraulic analysis where the existing subwatershed of each pool is calculated and then the post-action subwatershed of each pool is modeled. In the absence of this level of modeling, indirect effects can be estimated by utilizing a buffer around the habitat. A 250-foot buffer was used to determine acreage of indirect effects to aquatic habitats and species; however, the 250-foot buffer should be considered an average watershed area that would potentially be affected by these activities, but actual watershed areas around individual features may be larger or smaller than this buffer area.

Identifying the Threshold of Significance

For the purposes of this EA, an alternative would have a significant impact on biological resources if it would have a substantial adverse effect on a special-status species or its habitat such that it would contribute to a substantial decline of the local population by creating a likelihood that the local population would be eliminated over the short- or long-term. To reduce redundancy, this EA does not restate the methodology or threshold in each individual species section below, with the exception of bald eagle (*Haliaeetus leucocephalus*), golden eagle (*Aquila chrysaetos*), and California condor (*Gymnogyps californianus*).

8.2 REGULATORY SETTING

This section describes the existing regulatory framework for the proposed action.

Federal Regulations

The following federal regulations pertaining to biological resources would apply to the proposed action.

Federal Endangered Species Act

The Service has jurisdiction over species listed as threatened or endangered under the federal ESA. Because there is no federal nexus for the proposed action, consultation with the Service, including preparation of an HCP for potential impacts on federally listed species, has been

initiated pursuant to Section 10 of the ESA; as discussed in Chapter 1, this EA has been prepared to evaluate the environmental effects of implementation of the HCP, approval of which—and issuance of the associated Incidental Take Permit (ITP)—constitute the federal nexus triggering National Environmental Policy Act (NEPA) compliance.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA; 16 USC 668–668d), enacted in 1940, and as amended, prohibits anyone, without a permit issued by the Service, from “taking” bald and golden eagles including their parts, nests, or eggs. The BGEPA defines “take” as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” For purposes of these guidelines, “disturb” means: “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle; 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior; or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”

Lacey Act

The Lacey Act (16 U.S.C. 3371–3378) protects plants and wildlife by creating civil and criminal penalties for a wide variety of violations, including illegal take, possession, transport, or sale of protected species.

Plant Protection Act

The Plant Protection Act of 2000 (7 U.S.C. Ch. 104) established a federal program to control the spread of noxious weeds. The secretary of agriculture is authorized to publish a list of plants designated as noxious weeds (7 U.S.C. 7712(f)). The movement of all such weeds in interstate or foreign commerce is prohibited except under permit.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act (16 U.S.C. 661–666) applies to any federal project where the waters of any stream or other body of water are impounded, diverted, deepened, or otherwise modified. Project proponents are required to consult with the Service and the appropriate state wildlife agency. These agencies prepare reports and recommendations that document project effects on wildlife and identify measures that may be adopted to prevent loss or damage to wildlife resources. The term “wildlife” includes both animals and plants. Provisions of the act are implemented through the NEPA and Section 404 permit processes.

State Regulations

The following State of California regulations pertaining to biological resources would apply to the proposed action.

California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code, Section 2050 et seq.) is administered by CDFW. CESA includes threatened, endangered, and candidate species. Under Section 2062 of the California Fish and Game Code, the term “endangered species” refers to “a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.” Under Section 2067, the term “threatened species” refers to “a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts.” Under Section 2068, the term “candidate species” refers to “a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list.”

CESA prohibits the “take” of listed species except as otherwise provided in state law. Unlike its federal counterpart, CESA applies the take prohibitions to species that are candidates for state listing. The California Fish and Game Code defines “take” as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.”

CDFW may authorize the incidental take of listed species under CESA through issuance of an ITP pursuant to California Fish and Game Code Section 2081, subdivisions (b) and (c). These provisions of the code, coupled with CDFW’s CESA Implementing Regulations (14 CCR 783.0 et seq.), authorize CDFW to issue an ITP for a project as proposed if: (1) the take is incidental to an otherwise lawful activity; (2) the impacts of the taking are minimized and fully mitigated by measures that are roughly proportional in extent to the project-related impact to the species, maintain the applicant’s objectives to the maximum extent possible, and are capable of successful implementation; (3) the applicant ensures adequate funding to implement the measures, and for monitoring compliance with and effectiveness of those measures; and (4) the issuance of the permit would not jeopardize the continued existence of the species.

Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code

Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. CDFW cannot issue permits or licenses that authorize the “take” of any fully protected species, except under certain circumstances such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock. Furthermore, it is the responsibility of CDFW to maintain viable populations of all native species. To that end, CDFW has designated certain vertebrate species as Species of Special Concern because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.

California Native Plant Protection Act

The Native Plant Protection Act of 1977 directed CDFW to carry out the Legislature’s intent to “preserve, protect and enhance rare and endangered plants in this State.” The Native Plant Protection Act gave the California Fish and Game Commission the power to designate native plants as “endangered” or “rare” and protect endangered and rare plants from take. CESA expanded on the original Native Plant Protection Act and enhanced legal protection for plants, but the Native Plant Protection Act remains part of the Fish and Game Code. To align with federal regulations, CESA created the categories of “threatened” and “endangered” species. It converted all “rare” animals into the act as threatened species, but did not do so for rare plants. Thus, there are three listing categories for plants in California: rare, threatened, and endangered. Because rare plants are not included in CESA, mitigation measures for impacts to rare plants are specified in a formal agreement between CDFW and the project proponent.

California Desert Native Plants Act

The California Desert Native Plants Act protects California desert native plants from unlawful harvesting on both public and privately owned lands within Imperial, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego Counties. The following native plants, or any part thereof, may not be harvested except under a permit issued by the commissioner or the sheriff of the county in which the native plants are growing: all species of the Agavaceae (century plants, nolin, and yuccas); all species of the family Cactaceae; all species of the family Fouquieriaceae (ocotillo, candlewood); all species of the genus *Prosopis* (mesquites); all species of the genus *Cercidium* (paloverdes); catclaw acacia (*Acacia greggii*); desert holly (*Atriplex hymenelytra*); smoke tree (*Dalea spinosa*); and desert ironwood (*Olneya tesota*), both dead and alive (provision 80073). This provision excludes any plant that is declared to be a rare, endangered, or threatened species by federal or state law or regulations, including, but not limited to, the California Fish

and Game Code. The fee for the permit to remove any of these plants will not be less than \$1 per plant, except for Joshua trees (*Yucca brevifolia*), which will not be less than \$2 per plant.

Local Regulations

The following local/regional regulations pertaining to biological resources would apply to the proposed action.

Tulare County General Plan

The Conservation–Environmental Resources Management Element of the Tulare County General Plan provides objectives, policies, and programs regarding biological resources, including the following (County of Tulare 2012):

- ERM-1.1: Protection of Rare and Endangered Species.** The County shall ensure the protection of environmentally sensitive wildlife and plant life, including those species designated as rare, threatened, and/or endangered by State and/or Federal government, through compatible land use development.
- ERM-1.8: Open Space Buffers.** The County shall require buffer areas between development projects and significant watercourses, riparian vegetation, wetlands, and other sensitive habitats and natural communities. These buffers should be sufficient to assure the continued existence of waterways and riparian habitat in their natural state.
- ERM-1.9: Coordination of Management on Adjacent Lands.** The County shall work with other government land management agencies (such as the Bureau of Land Management, U.S. Forest Service, National Park Service) to preserve and protect biological resources, including those within and adjacent to designated Critical Habitat, reserves, preserves, and other protected lands, while maintaining the ability to utilize and enjoy the natural resources in the County.
- ERM-1.13: Pesticides.** The Tulare County Agricultural Commissioner/Sealer will cooperate with State and Federal agencies in evaluating the side effects of new materials and techniques in pesticide controls to limit effects on natural resources.
- ERM-1.14: Mitigation and Conservation Banking Program.** The County shall support the establishment and administration of a mitigation banking program, including working cooperatively with Tulare County Association of Governments (TCAG), Federal, State, not-for-profit and other agencies and groups to evaluate and identify appropriate lands for protection and recovery of threatened and endangered species impacted during the land development process.

ERM-1.15: Minimizing Lighting Impacts. The County shall ensure the lighting associated with new development or facilities (including street lighting, recreational facilities, and parking) shall be designed to prevent artificial lighting from illuminating adjacent natural areas at a level greater than on foot candle above ambient conditions.

ERM-1.16: Cooperate with Wildlife Agencies. The County shall cooperate with State and Federal wildlife agencies to address linkages between habitat areas.

ERM-1.17: Conservation Plan Coordination. The County shall coordinate with local, State, and Federal habitat conservation planning efforts (including Section 10 Habitat Conservation Plan) to protect Critical Habitat areas that support endangered species and other special-status species.

Tulare County Zoning Ordinance

Section 10.7, “RC” Resource Conservation Zone, of the Tulare County Zoning Ordinance (County of Tulare 1991) provides objectives, policies, and programs regarding biological resources, including the following:

- A. The “RC” Zone is an exclusive zone to be applied to remote, largely undeveloped areas of Tulare County where it is desirable or necessary to manage and preserve existing natural resources. These areas are generally identified in the General Plan as “Resource Conservation.” The purposes of this zone are as follows:
1. To minimize development in the remote areas of the County where services cannot be reasonably provided.
 2. To protect and preserve the natural resources, including open space resources, of the County from encroachment of unrelated incompatible uses.
 3. To permit the utilization and management of natural resources which provide commodity values such as timber, extensive agriculture, mining and energy development.
 4. To protect and preserve natural and cultural resources which provide amenity values, such as watershed, wildlife habitat, scenic vistas, and historical and archaeological sites.
 5. To establish a minimum parcel size standard which is appropriate for remote mountain areas where emphasis will be placed on resource management and development opportunities will be limited.
 6. To support and enhance the purposes of the Williamson Act for those properties which are subject to agricultural preserve contracts.

7. To implement land use controls and development standards which are necessary to achieve the goals and objectives for mountain lands as required by the General Plan.
8. To function as a holding zone in certain mountain areas which should be retained in resource management until such time as the General Plan is amended to provide for the conservation of such lands to other uses.

8.3 COVERED SPECIES

8.3.1 Valley Elderberry Longhorn Beetle (FT)

Affected Environment

The valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) depends completely on the elderberry bush (*Sambucus* sp.) to complete its life cycle. It spends most of its life in the larval stage, living in elderberry stems 1 inch in diameter or greater (Service 1999). Typically, the only evidence of valley elderberry longhorn beetle presence is the exit hole made in the stem when the beetle emerges just before its pupal stage. Adult beetles are present and active only for a limited time in the spring (April through May).

One hundred and ninety records since the listing of the species as federally threatened have documented populations from Shasta County to Fresno County (Service 2006a). The species may also occur in Tulare and Kern Counties, although no individuals were found in these areas (Service 2006a).

A California Natural Diversity Database (CNDDDB) query for this species resulted in only one documented occurrence near the HCP Permit Area (Figure 8-1). Quad Knopf (2011a) conducted surveys for valley elderberry longhorn beetles per the 1999 Service protocol survey requirements. A total of 77 elderberry shrubs or clumps of shrubs with stems greater than or equal to 1 inch in diameter were identified within the HCP Permit Area (Figure 8-1). No suitable exit holes were found in the elderberry shrubs located within the HCP Permit Area. Elderberry shrubs were found primarily in two land cover types within the HCP Permit Area: riparian habitat and rocky outcrops occurring in annual grassland. Elderberry shrubs are present in the riparian land cover type along the St. John's River and Cottonwood Creek. Elderberry shrubs also occur in the annual grassland cover type along dry ridges and rock outcrops east of the Friant-Kern Canal. Sixteen elderberry shrubs were found along rocky outcrops in the annual grassland cover type east of the Friant-Kern Canal, including one found outside the 1,000-foot-wide HCP Permit Area but close to an access road in the easternmost section of the corridor. Seven elderberry shrubs were also documented in developed areas.

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

No Action Alternative

Under the No Action Alternative (i.e., the future condition without the proposed HCP permit), the Cross Valley Transmission Line would not be constructed and new urban growth and development within the study area would continue to occur as prescribed by local regulations and planning documents. East of the Friant–Kern Canal, areas currently supporting natural land covers (including annual grassland and aquatic habitat) are within the Foothill Growth Management Plan and Rural Valley Lands Plan zoned for agriculture and mixed use (County of Tulare 2012). West of the Friant–Kern Canal, the study area is zoned for agricultural uses. There is a possibility that future development projects may result in loss of elderberry bushes and potentially the valley elderberry longhorn beetle, take of elderberry bushes and potentially the valley elderberry longhorn beetle, and/or indirect effects to elderberry bushes and/or the valley elderberry longhorn beetle.

Development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia, and would be required to prepare California Environmental Quality Act (CEQA) documentation as projects with discretionary actions are proposed. Projects would be individually required to mitigate any potentially significant effects to valley elderberry longhorn beetle. Additionally, the project proponent would need to apply for a permit from the Service to authorize the incidental take of federally listed species resulting from construction, operation, and maintenance of the project. The permit would be developed to implement a conservation plan that will avoid, minimize, and compensate for potential adverse effects on threatened and endangered species that may result from Covered Activities from the project and provide a basis for take authorization pursuant to the ESA.

Determination

Under the No Action Alternative, foreseeably future development could result in direct and indirect effects to elderberry bushes and potentially the valley elderberry longhorn beetle. With implementation of avoidance, minimization, and mitigation measures that would be prescribed pursuant to CEQA as well as conservation strategies associated with an ITP from the Service, the No Action Alternative would result in no significant adverse effects.

Proposed Action

Direct and Indirect Effects

Construction Covered Activities

Construction Covered Activities would result in permanent direct loss of 6 elderberry shrubs (with 50 stems greater than 1 inch) located east of the Friant–Kern Canal, due to clearing and grubbing of vegetation and grading of facility footprints and graded work areas. Construction Covered Activities may also directly harm elderberry shrubs through damage or removal of stems by vehicles and/or equipment or other sources, excavations within or near the root zone and/or damage to roots and/or soil around elderberry plants, and settling of dust and possibly herbicides on plant leaves.

Construction Covered Activities would also result in indirect effects to the elderberry shrubs and potentially the valley elderberry longhorn beetle through the introduction of invasive plants, potentially increased fire risk, and increased public access. Invasive plants would primarily be introduced by vehicles and/or equipment usage in the vicinity of elderberry shrubs. Increased fire risk is associated with the use of vehicles and/or machinery in close proximity to vegetated areas. Increased public access could result in disturbance or activities that could negatively affect elderberry shrubs, such as fires, vehicle-based damage to shrubs or soils, and vandalism.

The proposed action includes conservation strategies for valley elderberry longhorn beetle habitat that would reduce potential adverse effects. Direct effects would be minimized through implementation of Avoidance and Minimization Measures (AMMs) contained in the HCP during Covered Activities (PD-1 through PD-3), conducting environmental awareness training (C-1) and establishing environmentally sensitive areas (C-3), restricting equipment fueling and maintenance to areas away from elderberry shrubs (C-8), and marking and avoiding buffer areas around elderberry shrubs (VELB-1) prior to nearby ground-breaking activities in natural vegetation. Permanent direct effects would also be reduced by transplanting impacted shrubs (according to Service protocols) into an off-site mitigation bank and providing compensatory mitigation (VELB-2). Indirect effects would be minimized through implementing a noxious weed and invasive plant control plan (C-6), restricting equipment fueling and maintenance to areas away from elderberry plants (C-8), marking and avoiding buffer areas around elderberry shrubs (VELB-1), and constructing locking gates on access roads to reduce public access (C-11) (see Appendix A to the EA for the text of these AMMs).

Operations and Maintenance Covered Activities

Class I operation and maintenance (O&M) activities would be conducted entirely within the drivable surface of access roads, pads, or from aircraft, and would not disturb plants or the soil

surface in natural vegetation; therefore, there would be no direct effects from Class I O&M activities to valley elderberry longhorn beetle habitat.

Class II O&M activities are conducted in part in natural vegetation outside of pads and roads and would disturb vegetation and soil in those areas. Implementation of AMM VELB-1 will ensure that all valley elderberry longhorn beetle habitat would be avoided to the maximum extent practicable by establishing a marked buffer around each shrub. However, Class II O&M activities could still result in permanent direct effects to elderberry shrubs. Thirty-three elderberry shrubs are located within 250 feet of facility footprints and graded areas and could be affected by O&M Covered Activities. The Service assumes that one-third (11) of the 33 adjacent shrubs would be directly and/or indirectly harmed during O&M Covered Activities resulting in a loss of up to 100 stems greater than 1 inch in diameter.

Indirect effects to valley elderberry longhorn beetle from Class II O&M activities would be similar to indirect effects from construction Covered Activities.

The valley elderberry longhorn beetle habitat conservation strategy includes measures to minimize adverse effects from O&M activities. Permanent direct effects would be mitigated through implementation of VELB-2 (compensating for loss of elderberry shrubs in accordance with Service guidelines). Direct and indirect effects would be minimized through implementation of an O&M Environmental Compliance Plan (O&M-1), environmental awareness training (O&M-2), mapping of environmentally sensitive areas (O&M-3), conducting an environmental screening process (O&M-4), pre-activity surveys and monitoring (O&M-5), staying on existing access roads (O&M-6), and restricting vehicle speeds and travel (O&M-7). Indirect effects would be further minimized by restricting equipment fueling and maintenance to areas away from elderberry shrubs (O&M-9), controlling erosion near waterways and occupied habitat (O&M-10), revegetating temporarily disturbed areas (O&M-12), and implementing a noxious weed and invasive plant control plan (O&M-14).

Determination

There are 77 valley elderberry shrubs within the HCP Permit Area. The Proposed Action would result in the permanent loss of up to 17 elderberry shrubs. Additionally, damage or removal of stems on other elderberry shrubs located within 250 feet of facility footprints and graded areas may also occur as a result of O&M Covered Activities. The loss of 17 valley elderberry shrubs and damage or loss of stems on other elderberry shrubs within the 250-foot buffer of the HCP Permit Area would not substantially reduce available suitable habitat for the valley elderberry longhorn beetle. The proposed action would result in direct and indirect effects to valley elderberry longhorn beetles; however, these effects would be relatively small in size and indirect effects of short duration. In addition, with implementation of VELB-2, the above mentioned

O&M measures, and implementation of the conservation strategy in the HCP, implementation of the proposed action is not expected to have a significant adverse effect on this species.

Since the 17 removed shrubs would be transplanted to an off-site mitigation bank, along with compensatory mitigation, this direct effect is not a significant adverse effect.

Cumulative Effects

The geographic scope for the valley elderberry longhorn beetle habitat cumulative effects analysis consists of documented occurrences of valley elderberry longhorn beetle and suitable habitat within the extent of reasonably foreseeable projects identified in Chapter 3. Reasonably foreseeable projects would not affect documented occurrences of valley elderberry longhorn beetle; however, suitable habitat that may be occupied could be present within the footprint of future projects. Development projects could result in adverse effects to habitat and/or valley elderberry longhorn beetle individuals. Development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia, and would be required to prepare CEQA documentation as projects with discretionary actions are proposed. Projects would be individually required to mitigate any potentially significant effects to valley elderberry longhorn beetle. Additionally, the project proponent would need to apply for a permit from the Service to authorize the incidental take of federally listed species resulting from construction, operation, and maintenance of the project. The permit would be developed to implement a conservation plan that will avoid, minimize, and compensate for potential adverse effects on threatened and endangered species that may result from Covered Activities from the project and provide a basis for take authorization pursuant to the ESA. With implementation of required mitigation, foreseeable future project's contribution to cumulative effects would not be cumulatively considerable. Moreover, due to the lack of occupied habitat and with implementation of the conservation strategy, the proposed action's contribution to cumulative effects is negligible. The Service concludes that the small incremental effects of the proposed permit action and HCP on valley elderberry longhorn beetle habitat in the HCP Permit Area, when added to the effects of the past, present, and reasonably foreseeable future projects, does not substantially reduce valley elderberry longhorn beetle habitat in the geographic extent of the cumulative analysis. Therefore, cumulative effects are not considered significant or adverse.

8.3.2 Vernal Pool Fairy Shrimp (FT)

Affected Environment

The vernal pool fairy shrimp (*Branchinecta lynchi*), a federally listed threatened species, is a short-lived crustacean that is well adapted to the ephemeral nature of its habitat. It is known to occur in a wide range of vernal pool habitats in the southern and central portions of the San Joaquin Valley areas of California and in Oregon (Service 2005). Vernal pool fairy shrimps have

a high potential to occur in a wide spectrum of vernal pools and inundated features. This species occupies a variety of different vernal pool habitats: from small, clear sandstone rock pools to large, turbid and alkaline grassland valley floor pools (Service 2005). Populations of vernal pool fairy shrimp in the Central Valley are located in small swales, earthen pools, and basalt flow depressions that are typically smaller in scale than other branchiopod habitat (Eriksen and Belk 1999). Although the species has been collected from large vernal pools, including one that exceeds 25 acres, it tends to occur in vernal pools as small as 0.05 acre in unplowed grasslands (Eriksen and Belk 1999). Vernal pool fairy shrimp are also capable of completing their life cycles in artificially created ephemeral habitats including railroad toe-drains, roadside ditches, abandoned agricultural drains, ruts left by heavy construction vehicles, and depressions in firebreaks (Eng et al. 1990).

Typical emergence for the species occurs from December to early May after suitable precipitation events. This species has a breeding strategy uniquely adapted to ephemeral aquatic features. Vernal pool fairy shrimp can complete a life cycle within 6–7 weeks in winter and 3 weeks in spring, giving it the ability to inhabit disturbed/constructed sites that are avoided by more habitat-specific species (Eriksen and Belk 1999). An extended inundation period can result in multiple generations within an inundation period (Eriksen and Belk 1999). Females deposit eggs, known as cysts, into the sediment on the pool bottom. Cysts may lie dormant for more than a century before hatching (Eriksen and Belk 1999).

Vernal pool fairy shrimp are known to occur in a wide range of vernal pool habitats in the southern and central portions of the San Joaquin Valley in California (Service 2005). In the San Joaquin Valley, this species generally occurs in a ring around the margins of the valley near the surrounding foothills. Vernal pool fairy shrimp critical habitat is not present within the HCP Permit Area but is present to the north and west of the HCP Permit Area (Figure 8-2). Five occurrences of vernal pool fairy shrimp have been documented within 5 miles of the HCP Permit Area (CDFW 2013) (Figure 8-2). The nearest recorded vernal pool fairy shrimp occurrences (EOID 844 and EOID 45196) are both approximately 1.5 miles from the HCP Permit Area.

Within the HCP Permit Area, suitable habitat for the vernal pool fairy shrimp occurs east of the Friant–Kern Canal where vernal pools that are characteristic habitat for the species are found. Puddles and artificial impoundments (the basin/stock pond and cover type) such as basins located west and east of the Friant–Kern Canal may provide suitable habitat for vernal pool fairy shrimp. Based on the wetland delineation and results of the branchiopod surveys (Quad Knopf 2010, 2011b, 2012a), 47 vernal pools/swales, 16 basins/stock ponds, and 95 puddles (158 features) located in the HCP Permit Area could provide habitat for vernal pool fairy shrimp. The locations of these features are provided in Figures 8-3a and 8-3b.

Wet season protocol-level presence/absence branchiopod surveys were conducted in 2010–2011 (Quad Knopf 2011b) and 2011–2012 (Quad Knopf 2012a) within all suitable features. Additionally, dry season sampling was conducted in the summer and fall of 2012 at the 47 vernal pools and 95 puddles that SCE had permission to access.

The cumulative information gathered during protocol surveys indicates that vernal pool fairy shrimp is limited in distribution to the eastern portions of the HCP Permit Area where higher quality vernal pool habitat exists (Quad Knopf 2012a). Figures 8-3a and 8-3b depict vernal pools, basins, and puddles sampled during protocol surveys that contained listed branchiopods within the HCP Permit Area. Of the total number of pools surveyed during the 2010–2011 and 2011–2012 wet season surveys, vernal pool fairy shrimp were documented in 13 vernal pools and 3 puddles. All 16 of these water features occupied by vernal pool fairy shrimp are located east of the Friant–Kern Canal in the annual grassland land cover type (Quad Knopf 2012a). The majority of the 16 occupied vernal pools were large wetlands, although three were small puddles. These features include the following: RFS 1, RFS 2, RFS 3, RFS 5, RFS 6, RFS 10, RFS 12, RFS 13, RFS 14, RFS 15, RFS 16, RFS 18, SFS 1, SFS 57, SFS 58, and SFS 81.

There are 19.5 acres of suitable habitat and 1.9 acres of occupied habitat for vernal pool fairy shrimp within the HCP Permit Area.

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

No Action Alternative

Under the No Action Alternative (i.e., the future condition without the proposed HCP permit), the Cross Valley Transmission Line would not be constructed and new urban growth and development within the study area would continue to occur as prescribed by local regulations and planning documents. East of the Friant–Kern Canal, areas currently supporting natural land covers (including annual grassland and aquatic habitat) are within the Foothill Growth Management Plan and Rural Valley Lands Plan zoned for agriculture and mixed use (County of Tulare 2012). West of the Friant–Kern Canal, the study area is zoned for agricultural uses. There is a possibility that future development may result in loss of vernal pool habitat, take of vernal pool fairy shrimp, and/or indirect effects to vernal pool fairy shrimp.

Development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia, and would be required to prepare CEQA

documentation as projects with discretionary actions are proposed. Projects would be individually required to mitigate any potentially significant effects to vernal pool fairy shrimp. Additionally, the project proponent would need to apply for a permit from the Service to authorize the incidental take of federally listed species resulting from construction, operation, and maintenance of the project. The permit would be developed to implement a conservation plan that will avoid, minimize, and compensate for potential adverse effects on threatened and endangered species that may result from Covered Activities from the project and provide a basis for take authorization pursuant to the ESA.

Determination

Under the No Action Alternative, foreseeable future development could result in direct and indirect effects to vernal pool habitat and/or vernal pool fairy shrimp. With implementation of avoidance, minimization, and mitigation measures that would be prescribed pursuant to CEQA, as well as conservation strategies associated with an ITP from the Service, the No Action Alternative would result in no significant adverse effects.

Proposed Action

Direct and Indirect Effects

Construction Covered Activities

Construction Covered Activities would result in permanent direct effects to vernal pool fairy shrimp due to clearing and grubbing and grading activities related to construction of access roads and pads and footings and foundations for the transmission line. Permanent direct effects would also result from grading activities associated with construction of work areas. Permanent direct effects would include removal of 0.15 acre of suitable habitat, as well as potential take of individual vernal pool fairy shrimp. Temporary direct effects would occur within work areas that would not be graded but may require equipment access or placement of temporary structures. A total of 0.16 acre of suitable habitat would be temporarily affected by work areas.

Construction Covered Activities would also result in indirect effects to vernal pool fairy shrimp and to vernal pool habitat. Indirect effects could occur from alteration of the watershed of a suitable water feature, water degradation, and introduction of invasive species including noxious weeds. Alteration of the watershed would occur from placement of pads and structures and associated water control structures upstream of a water feature which would change the surface flow to the water feature. Vernal pool fairy shrimp habitat is dependent on seasonal filling and drying of the pool and is therefore sensitive to hydrologic changes. Within a 250-foot buffer of vernal pool fairy shrimp habitat, the Proposed Action would permanently affect 4.71 acres of buffer contributing to indirect effects to vernal pool fairy shrimp habitat.

Water degradation may occur from inadvertent release of pollutants, such as fuels and lubricants, due to leakage from construction equipment or from increased erosion and deposition of sediment. Spread of invasive nonnative plants may occur by introducing seed from other sites via vehicles and construction equipment. The creation of access roads could increase public access to the HCP Permit Area. Increased use of the area would further contribute to adverse indirect effects to vernal pool fairy shrimp habitat by providing additional mechanisms for release of pollutants and invasive species, increasing soil disturbance in the watershed of a water feature resulting in increased sedimentation to the pool, and soil disturbance within the pool that could harm or kill vernal pool fairy shrimp.

The proposed action includes conservation strategies for vernal pool fairy shrimp that would reduce potential adverse effects. Direct effects would be minimized through avoidance of vernal pool fairy shrimp habitat through siting project components outside of vernal pools (PD-2), establishing environmentally sensitive areas (C-3), and monitoring activities within 500 feet of vernal pool fairy shrimp habitat (VP-2). Permanent direct effects would also be mitigated by preserving in perpetuity an area greater than the area impacted (VP-3).

Indirect effects would be minimized through avoidance of sediment loading near waterways (PD-3), restricting vehicle speeds (C-4), implementing a noxious weed and invasive plant control plan (C-6), restricting equipment fueling and maintenance near waterways (C-8), controlling erosion near waterways and occupied habitat (C-9), and constructing locking gates on access roads (C-11). Additionally, a 250-foot buffer around avoided habitat would also be marked, and avoided and monitored (VP-1 and VP-2) in order to maintain the existing hydrological integrity of vernal pools/swales.

Operations and Maintenance Covered Activities

Class I O&M activities would be conducted entirely within the drivable surface of access roads, pads, or from aircraft, and would not disturb plants or the soil surface in natural vegetation; therefore, there would be no direct effects from Class I O&M activities to vernal pool fairy shrimp habitat. O&M Activity 1-6, Insulator Washing, involves the washing of polymer insulators on tower structures on an as-needed basis anticipated to be 1–10 structures per year. Washing is conducted with a fine mist that evaporates prior to reaching the ground; however, water collecting on the tower structure would drip to the ground. There may be some runoff to downstream fairy shrimp habitat; however, due to the low number of tower structures to be washed each year and the limited use of water for the washing, this activity would not substantially affect the hydrology of nearby vernal pool fairy shrimp habitat. Other indirect effects from Class I O&M activities would include potential for increased spread of invasive weed species due to the increased presence of personnel and equipment.

Class II O&M activities are conducted in part in natural vegetation outside of pads and roads, and would disturb vegetation and soil in those areas. Class II O&M activities would result in temporary direct effects to 0.09 acre of vernal pool fairy shrimp habitat. Indirect effects to vernal pool fairy shrimp for Class II O&M activities would be similar to indirect effects from construction Covered Activities and include potential for water degradation and increased spread of invasive species.

The conservation strategy for vernal pool fairy shrimp includes measures to minimize adverse effects from O&M activities. Permanent direct effects would be mitigated by implementation of AMM VP-3, preserving in perpetuity an area greater than the area impacted, as described under construction Covered Activities above. Direct and indirect effects would be minimized through implementation of an O&M Environmental Compliance Plan (O&M-1), mapping of environmentally sensitive areas (O&M-3), conducting pre-activity surveys and monitoring (O&M-5), staying on existing access roads (O&M-6), and restricting vehicle speeds and travel (O&M-7). Indirect effects would be further minimized by restricting equipment fueling and maintenance near waterways (O&M-9), controlling erosion near waterways and occupied habitat (O&M-10), revegetating temporarily disturbed areas (O&M-12), and implementing a noxious weed and invasive plant control plan (O&M-14). Additionally, a 250-foot buffer around avoided habitat would also be marked, and avoided and monitored (VP-1 and VP-2) in order to maintain the existing hydrologic integrity of vernal pools/swales.

Determination

The proposed action would result in direct and indirect effects to vernal pool fairy shrimp habitat; however, these effects would be relatively small in size and indirect effects of short duration. In addition, with implementation of AMM VP-3, the above-mentioned O&M measures, and the conservation strategy in the HCP, implementation of the proposed action is not expected to have a significant adverse effect on this species.

Cumulative Effects

The HCP Permit Area is located east of the eastern margin of the San Joaquin Valley Vernal Pool Region, which occurs within a low-lying region that runs southward from San Joaquin County to Kern County, including parts of Fresno, Kings, Madera, Merced, Stanislaus, and Tulare Counties. Three core areas are present within the San Joaquin Vernal Pool Region and the nearest area, Cross Creek Core Area, occurs to the west of the HCP Permit Area. As a result, the geographic scope for the vernal pool fairy shrimp cumulative effects analysis consists of vernal pool critical habitat in the San Joaquin Valley Vernal Pool Region that overlap the cumulative projects list area. Reasonably foreseeable future projects do not overlap vernal pool critical habitat or documented occurrences of vernal pool branchiopod species. Future projects located in

annual grassland habitat to the south of the eastern portion of the Cross Valley Loop may also affect as yet unmapped vernal pool habitat in that region. Vernal pool habitat is a sensitive community that supports state and federal listed species; therefore, future projects that affect vernal pool habitat would be required to avoid, minimize, and mitigate for these effects. The Service concludes that the small incremental effects of the proposed permit action and HCP on vernal pool fairy shrimp and habitat in the HCP Permit Area, when added to the effects of the past, present, and reasonably foreseeable future projects, do not substantially reduce vernal pool fairy shrimp habitat and are not considered cumulatively considerable.

8.3.3 Vernal Pool Tadpole Shrimp (FE)

Affected Environment

The federally endangered vernal pool tadpole shrimp (*Lepidurus packardii*) is a freshwater crustacean that inhabits vernal pools and swale habitats, similar to the vernal pool fairy shrimp. Suitable habitats include alkaline pools, vernal pools, vernal swales, vernal lakes, and other seasonal wetlands in California (Helm 1998, as cited in Service 2007b). Typically, the vernal pool tadpole shrimp is found in habitats that are deeper than 12 centimeters (5 inches) and that pond for a minimum of 15–30 days (Rogers 2001). Like vernal pool fairy shrimps, vernal pool tadpole shrimps have a breeding strategy adapted to ephemeral aquatic features. Females deposit cysts on the pool bottom. An extended inundation period can result in multiple clutches and the hatching of multiple generations. Cysts remain in a state of diapause, capable of withstanding desiccation, extreme temperatures, and extended periods (up to 100 years), until conditions are suitable for hatching (Eng et al. 1990).

The vernal pool tadpole shrimp has a patchy distribution across the Central Valley of California, from Shasta County southward to northwestern Tulare County, with isolated occurrences in Alameda and Contra Costa Counties (Service 2005, 2007b). Although vernal pool tadpole shrimps have a relatively wide distribution, the occurrence of the species is sporadic and they are uncommon when found. Vernal pool tadpole shrimp critical habitat is not present within the HCP Permit Area but is present to the north and west of the HCP Permit Area (Figure 8-2). The CNDDB reported 226 occurrences throughout the San Joaquin Valley in 2007 (Service 2007). Three occurrences of vernal pool tadpole shrimp have been documented in the vicinity of the HCP Permit Area (CDFW 2013) (Figures 8-3a and 8-3b). CNDDB records cited in the most recent USFWS Five-Year Status Review (Service 2007b) for the species document 28 occurrences of vernal pool tadpole shrimp have been found in the Southern Sierra Vernal Pool Region, including the Stone Corral Ecological Reserve, located approximately 1.5 miles northwest of the HCP Permit Area. The nearest vernal pool tadpole shrimp occurrence record (EOID 47873) is approximately 1.3 miles west of the HCP Permit Area.

Potentially suitable habitat for this species in the HCP Permit Area consists of larger and deeper vernal pools found in the annual grassland cover type in the HCP Permit Area east of the Friant–Kern Canal. During focused surveys conducted in 2010 (Quad Knopf 2011b) and 2011 (Quad Knopf 2012a), vernal pool tadpole shrimps were not found in any of the aquatic features sampled. However, stock ponds 28 and 34 could not be sampled because they are located on private property and access was not provided. Occupancy is assumed for both features.

While there are no documented occurrences of vernal pool tadpole shrimp in the HCP Permit Area, there are 18.60 acres of aquatic habitat considered suitable for vernal pool tadpole shrimp.

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

No Action Alternative

Effects to vernal pool tadpole shrimp under the No Action Alternative would be the same as vernal pool fairy shrimp.

Proposed Action Alternative

Construction Covered Activities

Since vernal pool tadpole shrimp were not documented within the HCP Permit Area during formal wet season sampling conducted in all suitable features, construction Covered Activities may not result in permanent direct effects to vernal pool tadpole shrimp; however, suitable habitat would be affected due to clearing, grubbing, and grading activities related to construction of access roads and pads, footings, and foundations for the transmission line. Permanent direct effects would also result from grading activities associated with construction of work areas. These permanent direct effects would include removal of 0.14 acre of suitable breeding habitat. Temporary direct effects would occur within work areas that would not be graded but may require equipment access or placement of temporary structures. A total of 0.14 acre of suitable breeding habitat would be temporarily affected by work areas.

Indirect effects to vernal pool tadpole shrimp suitable habitat from construction Covered Activities would be similar as for vernal pool fairy shrimp.

The proposed action includes conservation strategies for vernal pool tadpole shrimp that would reduce potential adverse effects. Since both vernal pool fairy shrimp and vernal pool tadpole

shrimp can occupy many of the same breeding habitats, vernal pool tadpole shrimp conservation strategies are the same as vernal pool fairy shrimp.

Operations and Maintenance Covered Activities

Effects to vernal pool tadpole shrimp habitat from O&M Covered Activities would be similar as for vernal pool fairy shrimp.

Determination

The proposed action would result in permanent direct effects to 0.14 acre of suitable breeding habitat, as well as temporary effects to 0.08 acre of suitable breeding habitat. Within a 250-foot buffer of vernal pool fairy shrimp habitat, the proposed action would also permanently affect 4.58 acres of buffer. The proposed action would result in direct and indirect effects to vernal pool tadpole shrimp habitat; however, these effects would be relatively small in size and indirect effects of short duration. In addition, with implementation of AMM VP-3, the previously mentioned O&M measures, and the conservation strategy in the HCP, implementation of the proposed action is not expected to have a significant adverse effect on this species.

Cumulative Effects

Cumulative effects to vernal pool tadpole shrimp would be the same as for vernal pool fairy shrimp and would not be cumulatively considerable.

8.3.4 California Tiger Salamander (FT, SE)

Affected Environment

The Central California distinct population segment (DPS), which includes the southern San Joaquin Valley population of the California tiger salamander (*Ambystoma californiense*), is most commonly associated with annual grassland habitats. However, this species may also occur within open woodland areas of low hills and valleys (Stebbins 2003), where seasonally inundated depressions are available for breeding (Service 2005). California tiger salamander in the HCP Permit Area is part of the southern San Joaquin Valley population, which includes portions of Madera, Fresno, Tulare, and Kings Counties.

Annual grassland scattered with seasonally inundated features such as vernal pools and stock ponds, or ponds that mimic the hydrology of vernal pools or seasonal ponds (e.g., stock ponds that fill with water each rainy season but become dry during summer) contain the highest density of breeding populations of California tiger salamander (AmphibiaWeb 2013). Breeding pools typically have a moderate to high level of turbidity that presumably reduces predation (Bobzien

and DiDonato 2007); although, this species also breeds in pools with clear water if cover (vegetation) is present.

California tiger salamanders breed from December through February (Calherps 2013). Reproduction is driven by precipitation patterns, varying from single mass events to multiple events lasting several months. Adults engage in mass migration during a few rainy nights during the rainy season from November to May and leave the breeding ponds shortly after breeding (Calherps 2013). During years without sufficient rainfall, migrations and breeding may not occur. Females typically leave breeding sites soon after egg-laying, while adult males usually remain at breeding ponds for a few days following reproduction, though some individuals may stay for several weeks. Most adults (typically 4–5 years old) return to their natal ponds during their first year of breeding, but about 30% were found to breed in different ponds (Calherps 2013). During a 3-year mark/recapture study at breeding ponds in Monterey County, Trenham (2001) found that approximately 80% of individuals returned to the same breeding ponds in subsequent years and that 20% dispersed to different ponds. In the same study, Trenham found that California tiger salamanders travelled 2,200 feet (670 meters/0.67 kilometer) between ponds. Dispersing California tiger salamanders have been found to be both first-time breeders (last captured as newly metamorphosed juveniles) and experienced breeders (last captured as breeding adults) (Trenham et al. 2001).

Like most amphibian larvae, California tiger salamander larvae must grow to a critical minimum size before they can metamorphose (74 FR 41662–41673). The longer the inundation period of the pool, the larger the larvae are able to grow before metamorphosis. Larger size at metamorphosis has been found to correlate with higher survival and reproduction rates (74 FR 41662–41673). California tiger salamander metamorphosis occurs from late spring to early summer (usually by the first week of July), after a larval stage that typically lasts 12 weeks with a range of 3–6 months (Service 2003). Juveniles disperse at night to suitable upland habitat, such as the burrows of California ground squirrel (*Spermophilus beecheyi*) and pocket gophers (*Thomomys* sp.), or other small mammal burrows. Once juveniles disperse to upland refugia, they do not typically return to breed for 4–5 years (74 FR 41662–41673).

California tiger salamanders have the second longest migration distance for ambystomid salamanders (Searcy et al. 2013). Orloff (2007) found that most California tiger salamander traveled at least 0.5 mile (0.8 kilometer) from the breeding sites. Searcy and Shaffer (2011) estimated that salamanders were capable of migrating up to 1.5 miles each breeding season but determined that 95% of the population was found within 1.16 miles of breeding ponds. Most salamanders appear to disperse in a straight line and are not influenced by terrain (Orloff 2007). However, urban development and dense vegetative cover do inhibit migration patterns. Trenham and Cook (2008) found that the salamanders were more likely to disperse through grasslands and avoid urbanized areas.

Suitable breeding and upland habitat for California tiger salamander occurs in the HCP Permit Area, with the majority occurring east of the Friant–Kern Canal. Critical habitat for California tiger salamander does not occur in the HCP Permit Area, but is present to the west of the HCP Permit Area (Figure 8-5). Six occurrences of the California tiger salamander are located within 5 miles of the HCP Permit Area (CDFW 2013; Service 2013) (Figure 8-5). The nearest occurrence record (EOID 408) is approximately 1.6 miles (2.6 km) north of the HCP Permit Area.

Formal larval sampling for California tiger salamander was conducted by Quad Knopf within the HCP Permit Area and suitable ponded habitat within 1.25 miles of the HCP Permit Area (Quad Knopf 2011c). During the focused surveys, California tiger salamander larvae were identified in eight out of 47 vernal pools and 16 stock ponds surveyed. These eight aquatic features are all located in the east–west portion of the Permit Area, and all are adjacent to or surrounded by large tracts of grazed annual grassland land cover. The eight occupied aquatic features collectively included four vernal pools (CTS 20, CTS 31, CTS 32, and CTS 33), three stock ponds (CTS 6, CTS 15, and CTS 17), and one shallow artificial basin constructed to capture local stormwater runoff (CTS 24). Four of the occupied sampled pools (CTS 20, CTS 31, CTS 32, and CTS 33) are located within the HCP Permit Area (Figure 8-6). These locations, respectively, correspond to vernal pool wetland features ep18, ep09, ep11, and ep40 (Quad Knopf 2010). The remaining four occupied aquatic features (CTS 24, CTS 17, CTS 15, and CTS 6) were outside of the HCP Permit Area, but within 1.24 miles (2 km) of the HCP Permit Area. Only three of the occupied aquatic features are within 150 feet of agricultural land cover types (CTS 20) or developed land cover (rural residential development) (CTS 6 and CTS 24). Based on recent information about California tiger salamander breeding and dispersal patterns, suitable aquatic features located within 2 km of an occupied aquatic feature are also assumed occupied breeding habitat. California tiger salamander occupied and suitable habitat within the HCP Permit Area is provided in Figure 8-6.

Approximately 1.89 acres of occupied breeding habitat and 18.6 acres of suitable breeding habitat occur within the HCP Permit Area. Additionally 1,048 acres of annual grassland within the HCP Permit Area provides suitable aestivation and foraging habitat, and 1,813 acres of agricultural land cover provides suitable dispersal habitat.

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

No Action Alternative

Under the No Action Alternative, the Cross Valley Transmission Line will not be constructed and new urban growth and development within the study area would continue to occur as prescribed by local regulations and planning documents. East of the Friant–Kern Canal, areas currently supporting natural land covers (including annual grassland and aquatic habitat) are within the Foothill Growth Management Plan and Rural Valley Lands Plan zoned for agriculture and mixed use (County of Tulare 2012). West of the Friant–Kern Canal, the study area is zoned for agricultural uses. There is a possibility that future development projects may result in loss of vernal pool and seasonal stock pond habitat, aestivation habitat, take of California tiger salamanders, and/or indirect effects to vernal pool habitat and California tiger salamanders.

Development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia, and would be required to prepare CEQA documentation as projects with discretionary actions are proposed. Projects would be individually required to mitigate any potentially significant effects to California tiger salamander. Additionally, the project proponent would need to apply for a permit from the Service to authorize the incidental take of federally listed species resulting from construction, operation, and maintenance of the project. The permit would be developed to implement a conservation plan that will avoid, minimize, and compensate for potential adverse effects on threatened and endangered species that may result from Covered Activities from the project and provide a basis for take authorization pursuant to the ESA.

Determination

Under the No Action Alternative, foreseeably future development could result in direct and indirect effects to California tiger salamanders and their habitat. With implementation of avoidance, minimization, and mitigation measures that would be prescribed pursuant to CEQA as well as conservation strategies associated with an incidental take permit from the Service, the No Action Alternative would not result in significant adverse effects to California tiger salamander.

Proposed Action Alternative

Construction Covered Activities would not result in permanent direct effects to California tiger salamanders since none of the occupied pools would be impacted by clearing and grubbing and grading activities related to construction of access roads and pads, footings and foundations for the transmission line. However, these activities would result in permanent direct effects to suitable breeding habitat and to annual grasslands that provide foraging and aestivation habitat. These permanent direct effects include the removal of 0.14 acre of suitable breeding habitat, and grading resulting in vegetation and burrow removal on 40.96 acres of suitable upland adult aestivation and foraging habitat. The Proposed Action would also result in the permanent loss of 11.65 acres of CTS dispersal habitat (agricultural land); however, this would not affect CTS movement, since construction of towers and associated facilities, and access roads would only create small dispersed footprints that would not impede CTS movement. Construction Activities would also result in temporary direct effects to CTS habitat within work areas that would not be graded but may require equipment access or placement of temporary structures. A total of 0.14 acre of suitable breeding habitat, 34.8 acres of suitable upland adult aestivation and foraging habitat, and 55.07 acres of suitable upland dispersal habitat would be temporarily affected by work areas.

Construction Covered Activities would also result in indirect effects to California tiger salamanders and to suitable habitat. These indirect effects include impacts to up to 44.58 acres of buffer contributing to the functionality of suitable breeding habitat and the potential for harassment, harm, or mortality of individual CTS from several sources including altered hydrology in watersheds containing suitable breeding habitat, degraded water quality conditions, spread of invasive plants, increased public access, and the creation of barriers to CTS movement. Water quality degradation may occur during the construction phase as a result of the release of pollutants such as fuels, lubricants, and solvents; or from increased erosion and sediment deposition. Vehicles and construction equipment may increase the spread of invasive nonnative plants by transporting seed from one site to another. Grading within the watersheds of vernal pools/swales, and some puddles and basins/stock ponds can result in alterations to hydrologic characteristics that can affect pool functions. Creation and improvement of access roads could result in impacts to both California tiger salamanders and California tiger salamander habitat. Increased use of the area could further contribute to adverse indirect effects to California tiger salamander habitat by providing additional mechanisms for release of pollutants and invasive species; increasing soil disturbance in the watershed of an aquatic feature resulting in increased sedimentation to the pool; and soil disturbance within the pool which could harm or kill California tiger salamanders. Installation of some permanent, maintained features would require land re-contouring which could potentially create not only obstacles to California tiger salamander movement, but also may entrap salamanders during migration.

The proposed action includes conservation strategies for California tiger salamander habitat which would reduce potential adverse effects. However, not all of the effects on California tiger salamander habitat could be avoided during the planning and design stages of the project. Permanent and temporary direct and indirect effects would be mitigated by implementation of CTS-5 and implementation of the proposed HCP. Direct effects would also be minimized through implementation of AMMs during Covered Activities (PD-1 through PD-3), conducting environmental awareness training (C-1), establishing environmentally sensitive areas (C-3), and limiting vehicle speeds and access (C-4). Permanent direct effects would also be reduced by monitoring activities within marked buffers (250 feet) created around vernal pool/swale habitat (VP-2). Four additional AMMs were developed specifically for conservation of California tiger salamanders and their habitat. These include conducting pre-activity clearance surveys to ensure that California tiger salamanders are not present (CTS-1), covering excavated holes and trenches to avoid trapping migrating California tiger salamanders (CTS-2), prohibiting use of monofilament netting which can also trap salamanders (CTS-3), and avoiding or minimizing effects to small mammal burrow complexes (CTS-4). Indirect effects would be minimized through implementing a noxious weed and invasive plant control plan (C-6), restricting equipment fueling and maintenance to areas away from waterways (C-8) and constructing locking gates on access roads to reduce public access (C-11).

Operations and Maintenance Covered Activities

Direct and indirect effects to California tiger salamander from Class I O&M activities would be the same as for vernal pool fairy shrimp.

Class II O&M activities would result in temporary direct effects to 0.08 acre of breeding habitat, 17.6 acres of upland adult aestivation and foraging habitat, and 14.9 acres of dispersal habitat. Indirect effects to California tiger salamander habitat and/or California tiger salamanders from Class II O&M activities would be similar to indirect effects from construction Covered Activities and include potential for water degradation and increased spread of noxious weeds and invasive species.

The conservation strategy for California tiger salamanders includes measures to minimize adverse effects from O&M activities. Permanent direct effects would be mitigated by implementation of CTS-5, preserving in perpetuity an area greater than the area impacted. Direct and indirect effects would be minimized through implementation of an O&M Environmental Compliance Plan (O&M-1), mapping of environmentally sensitive areas (O&M-3), conducting pre-activity surveys and monitoring (O&M-5), staying on existing access roads (O&M-6), and restricting vehicle speeds and travel (O&M-7). Indirect effects would be further minimized by limiting equipment fueling and maintenance near waterways (O&M-9), controlling erosion near waterways and occupied habitat (O&M-10), revegetating temporarily disturbed areas (O&M-12),

and implementing a noxious weed and invasive plant control plan (O&M-14). Additionally, conducting pre-activity clearance surveys to ensure that California tiger salamanders are not present (CTS-1), covering excavated holes and trenches to avoid trapping migrating California tiger salamanders (CTS-2), prohibiting use of monofilament netting which can also trap salamanders (CTS-3), and avoiding or minimizing effects to small mammal burrow complexes (CTS-4) will also minimize affects to California tiger salamanders and their habitat.

Determination

The Proposed Action would result in direct and indirect effects to CTS. The conservation strategy includes mitigating the permanent and temporary loss of grassland habitat (aestivation and foraging). The proposed action would result in direct and indirect effects to CTS; however, these effects would be relatively small in size and indirect effects of short duration. In addition, with implementation of CTS-1-5, the above-mentioned O&M measures, and the conservation strategy in the HCP, implementation of the proposed action is not expected to have a significant adverse effect on this species.

Cumulative Effects

Cumulative effects for California tiger salamander habitat would be the same as for vernal pool fairy shrimp habitat. Additionally, reasonably foreseeable future projects do not overlap documented occurrences of California tiger shrimp; therefore, the proposed action would not result in cumulatively considerable effects to California tiger salamander.

8.3.5 Western Spadefoot Toad (CSC)

Affected Environment

The western spadefoot toad (*Spea hammondi*) occurs throughout the Central Valley and in the Coast Ranges and coastal lowlands from San Francisco Bay to Mexico (Jennings and Hayes 1994). The western spadefoot toad, a CDFW California Species of Concern, is nearly endemic to California and ranges throughout the Central Valley and adjacent foothills, and is usually quite common where it occurs.

Suitable upland habitat includes washes, floodplains, alluvial fans, and playas (Stebbins 2003), extending into foothills and mountains to an elevation of (4,462 feet) (1,360 meters) (Jennings and Hayes 1994). During dry periods, individuals typically excavate burrows into the ground at depths up to 3 feet, but they may also occupy burrows constructed by small mammals; aestivation period may continue for 9 months (Jennings and Hayes 1994). Movement patterns and colonization abilities of the adult western spadefoot toads are not fully understood (Jennings and Hayes 1994). Western spadefoot toads typically emerge at night during periods of warm rainfall

to forage (Stebbins 1972). They move toward breeding sites in late winter to spring, in response to favorable temperatures and rainfall. The breeding season is brief (Stebbins 2003), sometimes lasting no more than 1 week. Following breeding, individuals return to upland habitats, where they spend most of the year aestivating (in a dormant state) in burrows. The western spadefoot toad may breed in the same ponds as California tiger salamanders in areas where the two species are sympatric (CDFW 2013).

Western spadefoot toads are a terrestrial species that enter water only to breed (Dimmit and Ruibal 1980). This species is often associated with vernal pools; however, breeding has been documented in artificial ponds, (e.g. stock ponds), sedimentation and flood control ponds, irrigation and roadside ditches, roadside puddles, tire ruts, and borrow pits (Fisher and Shaffer 1996; Service 2005). Adults remain in underground burrows and move very little during most of the year, but will travel up to several meters on rainy nights. They typically initiate surface movements during the first fall rains to breed. Adult movements to and from breeding ponds are rarely extensive and can travel up to several meters on rainy nights (Morey 2000). Depending on the temperature regime and annual rainfall, oviposition may occur between January and late May (Storer 1925; Burgess 1950; Feaver 1971; Stebbins 1985). Morey (2000) found that most breeding occurs from November to March, and tadpoles transform over four to eleven weeks after hatching. Recently metamorphosed juveniles seek refuge in the immediate vicinity of natal ponds and spend several hours to several days near these ponds before dispersing (Zeiner et al. 1990; Stebbins 2003; Morey 2000). However, little is known about the distance between breeding pools and the site of the summer burrow, or how they survive the dry conditions that are typical in April–June when these movements usually take place. By late summer, adults and juveniles are quiescent; usually in earth-filled burrows they construct themselves (Morey 2005).

The western spadefoot toad is found in grasslands and low foothill regions in the HCP Permit Area where lowland aquatic sites are available for breeding. Suitable upland habitat (grasslands) for western spadefoots (and for California tiger salamanders) occurs within and adjacent to the HCP Permit Area, especially east of the Friant–Kern Canal. Suitable upland habitat includes sheltering habitat (underground refugia) and foraging habitat (immediate vicinity of underground aestivation sites).

Based on the apparent limited movement (up to several meters on rainy nights) of adults, it is likely that most juvenile and adult western spadefoot toads aestivate in relatively close proximity to breeding pools if suitable habitat is present. Assuming that spadefoots typically move on rainy nights and can move up to several (3 meters) per night, and the Visalia area receives an average of 40 days of precipitation each year (National Weather Service data), it is possible that an individual toad may move about 120 meters per year. However, some of these rainy nights are used to move to breeding pools from underground aestivation sites. Based on these assumptions, dispersal from breeding pools may only occur for an average of 30 nights or less per year for a

maximum distance of about 90 meters. This distance may be conservative since movement may not occur on every rainy night.

There are six records of the western spadefoot toad occurring in the vicinity of the Permit Area (CDFW 2013) (Figure 8-8). The nearest occurrence record (EOD 60762) is approximately 1.1 miles (1.8 km) northwest of the HCP Permit Area; one tadpole was netted on March 25, 2005, on the Stone Corral Ecological Reserve. Numerous larvae were also observed 1.4 miles from the Permit Area, approximately 0.8 mile northeast of this location, on April 5, 1995 (EOD 410). Three additional western spadefoot toad occurrences (EOD 43826, EOD 61147, and EOD 60761) are located between approximately 1.5 and 3.9 miles west of the Permit Area. The remaining (sixth) occurrence is located approximately 3.2 miles southeast of the eastern terminus of the Permit Area.

The aquatic larval amphibian protocol used for conducting surveys for western spadefoot toads followed the USFWS interim guidance for California tiger salamander (Service 2003). The western spadefoot toad was found within the HCP Permit Area during amphibian larval surveys conducted by Quad Knopf from 2010–2011 (Quad Knopf 2011c). Twenty aquatic features within the HCP Permit Area and 35 aquatic features occurring within 1.24 miles of the perimeter of the HCP Permit Area were surveyed for western spadefoot toads (Quad Knopf 2011c). Of the total 55 ephemeral aquatic features surveyed, western spadefoot toads were documented in 35 of the pools, with 20 of these pools occurring within the HCP Permit Area (Figure 8-9). These 20 seasonal pools within the HCP Permit Area provide 16 acres of occupied breeding habitat for this species; and the remaining 15 ephemeral pools located outside the HCP Permit Area but within 1.24 mi of the perimeter of the HCP Permit Area, provide additional occupied breeding habitat for this species. Figure 8-9 depicts the distribution of confirmed western spadefoot toad breeding habitat within the HCP Permit Area. The majority of the locations documented during the surveys occurred east of the Friant–Kern Canal; however, spadefoots were also found at two locations to the west of the canal. Based on land cover types, potential upland aestivation habitat for California tiger salamanders in the vicinity of the HCP Permit Area is provided in Figure 8-10.

There are 16 acres of occupied breeding habitat, 7.8 acres of additional suitable breeding habitat, and 1,048.7 acres of suitable upland habitat (annual grasslands) for western spadefoot toads within the HCP Permit Area.

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

No Action Alternative

Under the No Action Alternative, development within the study area would continue to occur as prescribed by local regulations and planning documents and could include the conversion of annual grassland and aquatic habitat east of the Friant–Kern Canal to developed uses as part of the Foothill Growth Management Plan and Rural Valley Lands Plan which are zoned for agriculture and mixed use (County of Tulare 2012). West of the Friant–Kern Canal, the study area is zoned for agricultural uses, similar to existing land covers. There is a possibility that future development projects may result in loss of vernal pool habitat, take of western spadefoot toads, and/or indirect effects to western spadefoot toad breeding, aestivation, and foraging habitat.

Development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia, and would be required to prepare CEQA documentation as projects with discretionary actions are proposed. Projects would be individually required to mitigate any potentially significant effects to western spadefoot toad.

Determination

Under the No Action Alternative, foreseeably future development could result in direct and indirect effects to western spadefoot toad and its habitat. With implementation of avoidance, minimization, and mitigation measures that would be prescribed pursuant to CEQA, the No Action Alternative would not result in significant adverse effects.

Proposed Action Alternative

Construction Covered Activities would result in permanent direct effects to western spadefoot toad breeding and upland aestivation habitat by clearing and grubbing and grading activities related to construction of access roads and pads, footings and foundations for the transmission line. Permanent direct effects would include removal of 0.15 acre of suitable breeding habitat, as well as potential take of individual western spadefoots; and the removal of 40.96 acres of annual grassland that provides suitable foraging and aestivation habitat for western spadefoot toads. Construction activities would also result in temporary direct effects to western spadefoot habitat within work areas that would not be graded but may require equipment access or placement of

temporary structures. A total of 0.16 acre of suitable breeding habitat and 34.78 acres of suitable upland foraging and aestivation habitat would be temporarily affected by work areas.

Construction Covered Activities would indirectly affect up to 3.69 acres of suitable breeding habitat and could result in harassment, harm, or mortality of individual western spadefoot toads from several sources including altered hydrology in watersheds containing suitable breeding habitat, degraded water quality conditions, spread of invasive plants, increased public access, noise and vibration effects, and the accumulation of trash that could potentially attract predators. Indirect effects to breeding habitat would be the same as for vernal pool fairy shrimp.

The Proposed Action includes conservation strategies for western spadefoot toad habitat which would reduce potential adverse effects. However, not all of the effects on western spadefoot habitat could be avoided during the planning and design stages of the project. Permanent direct effects would be mitigated by implementation of VP-3, preserving in perpetuity an area greater than the area impacted. Direct effects would be minimized through implementation of AMMs during Covered Activities (PD-1 through PD-3), conducting environmental awareness training (C-1) and establishing environmentally sensitive areas (C-3), and limiting vehicle speeds and access (C-4). Permanent direct effects would also be reduced by monitoring activities within marked buffers (250 feet) created around vernal pool/swale habitat (VP-2). Two additional AMMs were developed specifically for conservation of western spadefoots and their habitat. These include conducting pre-activity clearance surveys to ensure that western spadefoots are not present (WSFT-1) and covering excavated holes and trenches to avoid trapping migrating western spadefoot toads (WSFT-2). Indirect effects would be minimized through implementing a noxious weed and invasive plant control plan (C-6), restricting equipment fueling and maintenance to areas away from waterways (C-8), and constructing locking gates on access roads to reduce public access (C-11).

Operations and Maintenance Covered Activities

Class I O&M activities would be conducted entirely within the drivable surface of access roads, TSP/LST pads, or from aircraft, and would not disturb plants or the soil surface in natural vegetation; therefore, there would be no direct effects from Class I O&M activities to western spadefoot toads or habitat. Potential indirect effects would be the same as for vernal pool fairy shrimp.

Class II O&M activities would result in temporary direct effects to 0.09 acre of breeding habitat and 17.62 acres of upland adult aestivation and foraging habitat. Indirect effects to western spadefoot habitat and/or western spadefoots for Class II O&M activities would be similar to indirect effects from construction Covered Activities and include potential for water degradation, noise and vibration effects, and increased spread of noxious weeds and invasive species.

The conservation strategy for western spadefoots includes measures to minimize adverse effects from O&M activities. Permanent direct effects would be mitigated by implementation of VP-3 (also WSFT-3), preserving in perpetuity an area greater than the area impacted. Direct and indirect effects would be minimized through implementation of an O&M Environmental Compliance Plan (O&M-1), mapping of environmentally sensitive areas (O&M-3), conducting pre-activity surveys and monitoring (O&M-5), staying on existing access roads (O&M-6), and restricting vehicle speeds and travel (O&M-7). Indirect effects would be further minimized by limiting equipment fueling and maintenance near waterways (O&M-9), controlling erosion near waterways and occupied habitat (O&M-10), revegetating temporarily disturbed areas (O&M-12), and implementing a noxious weed and invasive plant control plan (O&M-14). Additionally, conducting pre-activity clearance surveys to ensure that western spadefoots are not present (WSFT-1), covering excavated holes and trenches to avoid trapping migrating western spadefoots (WSFT-2), and prohibit the use of monofilament netting since this material can trap western spadefoots (CTS-3).

Determination

There are 16 acres of occupied breeding habitat, 7.81 acres of suitable breeding habitat and 1,048 acres of suitable aestivation and foraging habitat for western spadefoot toad within the HCP Permit Area. The Proposed Action would result in permanent direct effects to 0.15 acre of suitable breeding habitat and 40.96 acres of suitable upland adult aestivation and foraging habitat. The Proposed Action would also result in temporary direct effects to 0.25 acre of suitable breeding habitat and to 52.4 acres of suitable upland adult aestivation and foraging habitat. The conservation strategy would reduce direct effects to suitable habitat and most indirect effects such that they would be adverse but not significant. In addition, with implementation of the above-mentioned general AMMs and species-specific measures (WSFT-1 and WSFT-2), the proposed action is not expected to have significant adverse effects to this species.

Cumulative Effects

The HCP Permit Area is located east of the eastern margin of the San Joaquin Valley Vernal Pool Region. California tiger salamanders can occupy vernal pools habitats and seasonal basin and stock pond habitats. The geographic scope for the western spadefoot cumulative effects analysis consists of vernal pools within the cumulative projects list area and basin/stock pond features surveyed as part of the HCP. Based on the locations of vernal pools and basin/stock ponds mapped within and adjacent to the HCP Permit Area, eight or nine occupied western spadefoot toad breeding habitats (three within the HCP Permit Area, and five south and two north of the HCP Permit Area) would be affected by reasonably foreseeable future projects (Figure 8-7). Several other future projects are also located in annual grassland habitat to the

south of the eastern portion of the Cross Valley Loop and will also likely impact western spadefoot toad breeding habitat. The Service concludes that the small incremental effects of the proposed permit action and HCP, when added to the effects of the past, present, and reasonably foreseeable future projects on western spadefoot habitat in the HCP Permit Area does not substantially reduce western spadefoot breeding, aestivation, or movement habitat in the cumulative projects and are not considered significant or adverse.

8.3.6 Burrowing Owl (CSC)

Affected Environment

Burrowing owls (*Athene cunicularia*), a C DFW-designated Species of Special Concern, are summer residents in the western half of the United States and year-round residents in the southwestern portion of the United States and northern and central Mexico. In California, they inhabit the lowlands of the Central Valley and the desert environments of the southeastern part of the state. Although burrowing owls still exist in most portions of their historic range, their population densities have declined because of habitat loss, degradation, and fragmentation.

Burrowing owls nest in small mammal burrows, most frequently in the burrows of California ground squirrels. Although primarily crepuscular (active in low light) when foraging, burrowing owls will hunt for insects and small vertebrates during both day and night. Their breeding season begins in March or April and extends through August. Average clutch size is five or six eggs, and they rarely produce a second brood. Where site conditions are optimal, burrowing owls sometimes form loose colonies, which is unusual for avian predators (Haug et al. 1993).

The entire HCP Permit Area is considered suitable habitat for the burrowing owl, except for developed land cover, orchards, and aquatic habitats. The highest quality grassland areas for burrowing owl nesting habitat occur east of the Friant–Kern Canal in the east–west portion of the HCP Permit Area. However, open agricultural areas may also provide suitable habitat for this species, especially along the margins of fields or within open areas in agricultural land cover in the north–south portion of the HCP Permit Area. In total, there are 1,034 acres of suitable breeding and foraging habitat for this species within the HCP Permit Area.

There are five records of burrowing owl (EOID 69904, EOID 69899, EOID 69905, EOID 72574, and EOID 72586) near the HCP Permit Area (Figure 8-11). The nearest occurrence (EOID 69905) is located approximately 1.4 miles north of the HCP Permit Area, where two adults were observed on February 9, 2006, at two burrows located approximately 0.8 mile east–southeast of St. Mary’s Church, just south of Sontag Ditch (CDFW 2013).

Four burrowing owl adults were identified within the HCP Permit Area in 2011 by Quad Knopf (2012b) (Figure 8-11). All of the sightings were east of the Friant–Kern Canal. One of these

adults was associated with a burrow that was considered to be active due to the presence of cast pellets and prey remains near its entrance. Another active burrow was identified less than 350 feet south of this burrow, although no adult was observed near the entrance. Neither of these two burrows was found to be intact during subsequent visits. Cattle-grazing was suspected to have been the cause of both burrow collapses. Two additional sightings of an adult burrowing owl occurred in the vicinity of these two burrows. One of these sightings was located approximately 230 feet north of the Permit Area. Since these three sightings were made on separate survey dates, they may have been the same individual. The fourth burrowing owl was identified near the east terminus of the HCP Permit Area, and appeared to be a transient forager because it was not associated with any active burrow. A fifth burrowing owl was observed near an active burrow outside of the HCP Permit Area approximately 0.5 mile south of the eastern terminus of the HCP Permit Area. All of the sightings were made between October 19, 2010, and August 4, 2011.

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

No Action Alternative

Under the No Action Alternative, development within the study area would continue to occur as prescribed by local regulations and planning documents, and could include the conversion of annual grassland and agricultural land covers east of the Friant–Kern Canal to developed uses as part of the Foothill Growth Management Plan and Rural Valley Lands Plan which are zoned for agriculture and mixed use (County of Tulare 2012). West of the Friant–Kern Canal, the study area is zoned for agricultural uses, similar to existing land covers. There is a possibility that future development projects may result in loss of active burrow sites, take of burrowing owl, and/or indirect effects to burrow sites and burrowing owls within the annual grassland and agricultural land uses.

Development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia, and would be required to prepare CEQA documentation as projects with discretionary actions are proposed. Projects would be individually required to mitigate any potentially significant effects to burrowing owl.

Determination

Under the No Action Alternative, foreseeably future development could result in direct and indirect effects to active burrow sites and burrowing owls. With implementation of avoidance,

minimization, and mitigation measures that would be prescribed pursuant to CEQA the No Action Alternative would not result in significant adverse effects.

Proposed Action

Construction Covered Activities

Construction Covered Activities would result in permanent direct effects on 40.96 acres of annual grassland, which provides suitable breeding and foraging habitat, and 2.33 acres of agricultural-row crops, which provides suitable foraging habitat. Construction Covered Activities may also result in the harassment, harm, or mortality of owls, disrupt foraging activities, affect usage of burrows, collapse or crush burrows, or result in increased collision with vehicles. Construction Covered Activities would also result in temporary direct effects to 34.78 acres of annual grassland breeding and foraging habitat and to 9.26 acres of row crops providing foraging habitat.

Construction Covered Activities could also result in indirect effects to burrowing owl habitat via introduction of invasive species and noxious weeds, increased accumulation of trash, vegetation and soil disturbance in the vicinity of burrows, increased visibility of burrows to predators, and increased public access. Spread of invasive non-native plants may occur by introducing seed from other sites via vehicles and construction equipment. Trash accumulation during the construction phase could increase the number of predators such as coyotes (*Canis latrans*) and foxes in the area which could impact individual burrowing owls and the local population through increased predation. Soil disturbance in the vicinity of burrows could result in collapse or crushing of burrows and potentially harming individual burrowing owls. Clearing and grubbing activities in annual grasslands could result in exposure of active burrows to predators and humans. Creation and improvement of access roads could increase public access to the HCP Permit Area, which could further contribute to adverse indirect effects to burrowing owl and/or burrowing owl habitat. Increased public use could also result in disturbance to active burrows and harassment, harm, or mortality to individual owls.

The proposed action includes conservation strategies for burrowing owl which would reduce potential adverse effects to burrowing owl habitat and to individual burrowing owls. Direct effects would be minimized through avoidance of burrowing owl habitat by siting project features far away from active burrows (PD-2) and establishing environmentally sensitive areas (C-3). Additionally, species-specific measures were developed to ensure that individual owls and active burrows were protected. These measures include conducting preconstruction surveys during construction (BUOW-1), delineating exclusion areas around (active) occupied burrows (BUOW-2), and relocating owls associated with active burrows that cannot be avoided (BUOW-3). Permanent direct effects would be mitigated by the purchase of off-site burrowing owl habitat

(BUOW-4) at a 3:1 ratio for annual grassland habitat permanently affected and not revegetated, a 2:1 ratio for annual grassland habitat permanently affected but revegetated, a 1.1:1 ratio for annual grassland temporarily affected, and 1:1 ratio for row crops directly affected. Indirect effects would be minimized by restricting vehicle speeds (C-4); prohibiting pets which can harass, harm, or kill burrowing owls (C-5); implementing a noxious weed and invasive plant control plan (C-6); trash management to avoid attracting predators (C-10); and constructing locking gates on access roads (C-11).

Operations and Maintenance Covered Activities

Class I O&M activities would be conducted entirely within the drivable surface of access roads, TSP/LST pads, or from aircraft, and would not include any ground disturbance activities. As a result, there would be no direct effects from Class I O&M activities to burrowing owls or burrowing owl habitat. Indirect effects from Class I O&M activities would include potential for increased spread of invasive weed species due to the increased presence of personnel and equipment.

Class II O&M activities, which would involve ground and vegetation disturbance, would result in temporary direct effects to 17.62 acres of annual grassland, which provides breeding and forage habitat for burrowing owls, and 2.84 acres of agricultural-row crop land cover, which that provides foraging habitat. Class II O&M Covered Activities could also harass or harm nesting owls. Other indirect effects to burrowing owl habitat for Class II O&M activities would be similar to indirect effects from construction Covered Activities.

The conservation strategy for burrowing owl includes measures to minimize adverse effects from O&M activities. Permanent direct effects would be mitigated by implementation of BUOW-4, which would preserve in perpetuity a greater amount of suitable habitat than the area impacted. Direct and indirect effects would be minimized through implementation of an O&M Environmental Compliance Plan (O&M-1), mapping of environmentally sensitive areas (O&M-3), conducting pre-activity surveys and monitoring (O&M-5), staying on existing access roads (O&M-6), restricting vehicle speeds and travel (O&M-7), prohibiting pets within the HCP Permit Area (O&M-8), and removing accumulated trash on a daily basis (O&M-13). Similar to conservation measures adopted for burrowing owl for construction Covered Activities, Class II O&M Covered Activities will also require preconstruction surveys (BUOW-1), delineating exclusion areas around (active) occupied burrows (BUOW-2), and relocating owls associated with active burrows that cannot be avoided (BUOW-3).

Determination

The proposed action would result in direct and indirect effects to burrowing owl and its habitat. These effects would be reduced through the implementation of the conservation strategy such that direct and indirect effect on burrowing owl would be minimized, and there would not be a

substantial loss of burrowing owl habitat. With implementation of these measures, effects to burrowing owl are determined by the Service to be adverse but not significant.

The proposed action would result in direct and indirect effects to burrowing owl and its habitat; however, these effects would be relatively small in size and indirect effects of short duration. In addition, with implementation of the above-mentioned O&M measures and species-specific measures (BUOW-1 through 3), the proposed action is not expected to have significant adverse effects to this species.

Cumulative Effects

The geographic scope for the burrowing owl cumulative effects analysis consists of annual grasslands and agricultural land uses within the extent of the cumulative projects list. Reasonably foreseeable projects would primarily affect agricultural and developed land covers (see Figure 7-4). Maintaining agricultural uses in the region is a goal of local planning documents and policies; therefore, future projects would have to comply with these goals to maintain agricultural uses. Furthermore, the proposed action would not result in a substantial reduction in agricultural land cover. Of the reasonably foreseeable future projects, only Project 75 (Yokohl Ranch) would affect a large area of grassland/herbaceous land cover (see Figure 7-4) and, in and of itself, may significantly contribute to adverse effects to this land cover; however, the contribution of the proposed action to the cumulative effect is negligible. With integration of the conservation strategy, the proposed action's contribution to the cumulative adverse effect on annual grassland and agricultural land covers, and therefore to burrowing owl habitat, would not be cumulatively considerable.

8.3.7 Southwestern Willow Flycatcher (FE, SE)

Affected Environment

The willow flycatcher (*Empidonax traillii*) is a migratory songbird that is dependent upon riparian habitat for breeding. There are four subspecies of the willow flycatcher. The subspecies are differentiated primarily by subtle differences in color and morphology and their occupation of distinct breeding ranges. Two subspecies of willow flycatcher have breeding ranges occurring to the west of the Sierra Nevada mountains, the little willow flycatcher (*Empidonax traillii brewsteri*) and the southwestern willow flycatcher (*Empidonax traillii extimus*). The southwestern willow flycatcher, federally and state-listed endangered, spends the winter in locations such as southern Mexico, Central America, and probably South America. The bird migrates and breeds in the United States from April to September. The historic breeding range includes Southern California, southern Nevada, southern Utah, Arizona, New Mexico, western Texas, and southwestern Colorado. The willow flycatcher has declined in numbers and in distribution because of the loss and degradation of riparian vegetation in California.

In California, willow flycatcher breeding habitat is typically composed of moist meadows with perennial streams, lowland riparian woodlands dominated by willows, and cottonwoods or smaller spring-fed or boggy areas with willows or alders (Harris et al. 1988; Craig and Williams 1998). Riparian deciduous shrubs or trees such as willow or alder are essential elements of willow flycatcher territories (Harris et al. 1988). In lowland riverine habitats, contiguous willow thickets are most often used. These thickets may provide for a habitat edge and/or openings within the willow canopy that are necessary for this species (Harris 1991).

Southwestern willow flycatchers are mostly restricted to river corridors and in general prefer moist, dense shrubby areas, often with standing or running water. Regardless of plant species composition or height, occupied sites always have dense vegetation in the patch interior. Willow flycatchers have nested in patches as small as 0.8 hectares; however, they have not been found nesting in narrow linear habitats that are less than 10 meters wide, although they will use such linear habitats during migration (Sogge et al. 1997). There is one documented occurrence of willow flycatcher approximately 4 miles north of Cottonwood Creek within the HCP Permit Area and was not identified to subspecies (CDFW 2013).

There are 8 acres of suitable riparian habitat and 15 acres of riverine habitat suitable for nesting and foraging by the southwestern willow flycatcher in the HCP Permit Area.

Preliminary evaluation of the presence/absence of southwestern willow flycatchers within the HCP Permit Area was conducted in 2011; however, these surveys were not conducted during all of the temporal periods required to make a determination of absence. A complete series of protocol-level surveys for this species was conducted in 2012 within the HCP Permit Area (Quad Knopf 2012b). No willow flycatchers were observed along Cottonwood Creek. Along St. John's River, two willow flycatchers (not identified to subspecies) were observed in 2011 and three willow flycatchers (not identified to subspecies) were observed in 2012. All five observations were determined to be transients as these birds exhibited no behavior that would indicate breeding status and they were only observed for a short period of time.

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

No Action Alternative

Under the No Action Alternative, new urban growth and development within the study area would continue to occur as prescribed by local regulations and planning documents. Cottonwood Creek is within the Foothill Growth Management Plan, and St. John's River is within the Urban

Area Boundary and the Urban Area Development Boundary (County of Tulare 2012; see Figure 7-2 of this EA). Although the riparian habitat is within areas zoned for development, both the City and County General Plans call for the avoidance and preservation of waterways and riparian habitat. As such, it is unlikely that riparian habitat would be directly affected by development, in compliance with these policies. Direct or indirect effects to riparian habitat would have to be mitigated pursuant to CEQA. There is a possibility that future development may result in direct and indirect effects to southwestern willow flycatcher should it occupy the riparian habitat within the HCP Permit Area. Should habitat be occupied, the project proponent would need to apply for a permit from the Service to authorize the incidental take of federally listed species. The permit would be developed to implement a conservation plan that will avoid, minimize, and compensate for potential adverse effects on threatened and endangered species and provide a basis for take authorization pursuant to the federal ESA.

Determination

Under the No Action Alternative, foreseeable future development could result in direct and indirect effects to riparian habitat and/or southwestern willow flycatcher should it occupy the habitat. With implementation of avoidance, minimization, and mitigation measures that would be prescribed pursuant to CEQA and the ESA, the No Action Alternative would not result in significant adverse effects to southwestern willow flycatcher or its habitat.

Proposed Action Alternative

Direct and Indirect Effects

Covered Activities, including construction and O&M, would not result in permanent or temporary direct effects to riparian habitat suitable for southwestern willow flycatcher.

Indirect effects to southwestern willow flycatcher, should they occupy the riparian habitat within the HCP Permit Area, could jeopardize an individual's survival through interference, disruption, or prevention of critical behaviors such as foraging, escape, courtship, mating, nest building, or provisioning. Covered Activities, including construction and O&M, could potentially lead to short-term indirect effects including construction-generated dust, noise, and nighttime lighting; inadvertent release of pollutants; increased sediment deposition; and increased potential for predation due to trash or presence of pets. Longer term indirect effects to riparian habitat could include introduction and spread of invasive and noxious weeds, a change in fire regime, and increased human presence.

The proposed action includes conservation strategies which would reduce potential adverse effects for southwestern willow flycatcher. Direct effects from construction and O&M activities would be avoided and minimized through inventorying and avoiding sensitive biological resources (PD-1, PD-2, and O&M-5), mapping environmentally sensitive areas (C-3, O&M-3),

implementing an environmental screening process (O&M-4), staying on existing access roads (O&M-6), avoiding impacts to nests (C-2 and Nesting Bird-1), and restoration of riparian habitat on a 1:1 basis (Nesting Bird-2).

Potential adverse indirect effects from construction and O&M activities would be avoided and minimized through implementation of conservation measures including avoidance of sediment loading near waterways (PD-3), environmental awareness training (C-1, O&M-2), prohibiting pets (C-5), implementing a noxious weed and invasive plant control plan (C-6, O&M-14), restricting equipment fueling and maintenance near waterways (C-8), erosion control (C-9), removing trash (C-10), preparing and implementing fire prevention and control plan (C-7, O&M-11), and constructing locking gates on access roads (C-11). Additionally, implementation of EC AQ-1, EC AQ-2, EC PH-3, EC, EC NOI-1a, EC NOI-1b, and AES-4 would reduce potential effects from dust, noise, and nighttime lighting.

Determination

Southwestern willow flycatcher is not known to breed within the HCP Permit Area; however, 8 acres of suitable riparian habitat exists for this species. The proposed action would not result in direct effects to riparian habitat. Potential indirect effects would be of short duration. In addition, with implementation of the above-mentioned O&M measures and the conservation strategy in the HCP, implementation of the proposed action is not expected to have a significant adverse effect on this species.

Cumulative Effects

There is only one documented occurrence of a willow flycatcher within the cumulative projects area, located 4 miles north of Cottonwood Creek; therefore, the geographic scope for the southwestern willow flycatcher cumulative effects analysis consists of riparian habitat within the extent of reasonably foreseeable future projects (Figure 8-15). The cumulative projects do not overlap significant areas of riparian habitat and would not substantially contribute to the reduction of this community. Local policies, including the Tulare County and City of Visalia General Plans, call for the avoidance of riparian habitat. Direct and indirect effects to riparian habitat would have to be mitigated pursuant to CEQA and Fish and Game Code protecting streambeds and associated riparian habitat. Furthermore, should southwestern willow flycatcher occupy riparian habitat within the footprint of a foreseeable future project, the project proponent would need to apply for a permit from the Service to authorize the incidental take of a state-listed species. The permit would be developed to avoid, minimize, and compensate for potential adverse effects on threatened and endangered species. With implementation of mitigation measures, reasonably foreseeable future projects would not result in cumulatively considerable loss of riparian habitat or significantly

adversely affect southwestern willow flycatcher. Therefore, cumulative effects to southwestern willow flycatcher are not considered significant or adverse.

8.3.8 Little Willow Flycatcher (CSC)

Affected Environment

The little willow flycatcher (*Empidonax traillii brewsteri*) is designated by CDFW as a California Species of Special Concern. It is a migratory songbird that is dependent upon riparian habitat for breeding. The breeding range of the little willow flycatcher in California is from Tulare County north, along the western side of the Sierra Nevada and Cascades, extending to the coast in Northern California (Craig and Williams 1998).

The little willow flycatcher typically uses willow-dominated riparian vegetation (Grinnell and Miller 1944; Harris et al. 1988). Suitable habitat includes moist meadows with perennial streams and smaller spring-fed or boggy areas with willow or alder (Harris et al. 1988). Little willow flycatchers have also been found in other riparian environments of various types and sizes ranging from small willow-surrounded lakes or ponds with a fringe of meadow or grassland to various willow-lined streams, grasslands, or boggy areas (Craig and Williams 1998).

The little willow flycatcher is under similar pressure from habitat loss as the southwestern willow flycatcher. One documented occurrence of willow flycatcher was noted on Cottonwood Creek 4.0 miles north of the HCP Permit Area during the migratory period and was not identified to subspecies (CDFG 2012).

There are 8 acres of suitable riparian habitat and 15 acres of riverine habitat suitable for nesting and foraging by the little willow flycatcher in the HCP Permit Area.

Surveys for willow flycatcher were conducted in 2011 and 2012 within suitable habitat (Quad Knopf 2012b). No willow flycatchers were observed along Cottonwood Creek. Along St. John's River, two willow flycatchers (not identified to subspecies) were observed in 2011 and three willow flycatchers (not identified to subspecies) were observed in 2012. All five observations were determined to be transients as these birds exhibited no behavior that would indicate breeding status, and they were only observed for a short period of time (Quad Knopf 2012b).

Environmental Consequences

Environmental consequences for both the No Action and Proposed Action alternative for little willow flycatcher would be the same as for southwestern willow flycatcher as both subspecies occupy similar habitat and survey results did not distinguish between the two subspecies.

8.3.9 Least Bell's Vireo (FE, SE)

Affected Environment

The least Bell's vireo (*Vireo bellii pusillus*) is federally and state-listed endangered. This species formerly nested through the coastal slope of Southern California, interior Coast Ranges of Central California, the San Joaquin and Sacramento Valleys and surrounding foothills, and parts of Inyo County. It now is limited to isolated locations of extensive riparian habitat in the Southern California coastal slope and has bred in small numbers at widely scattered sites elsewhere in its former range (Service 2006b). Within California, least Bell's vireos are currently restricted in their distribution to eight southern counties, with the majority of birds occurring in San Diego County.

Least Bell's vireo is an obligate riparian species during the breeding season, preferentially using early successional habitat. The least Bell's vireo is present in California from late March through August. This species typically inhabits structurally diverse woodlands along watercourses, including cottonwood-willow forest, oak woodlands, and mulefat scrub (Service 1998a). The structure of occupied habitat usually consists of dense cover within 3–6 feet of the ground and a dense, stratified canopy for foraging (Service 1998a). This species has undergone a precipitous decline in numbers due to the loss and degradation of riparian habitat throughout its range and because of substantial cowbird (*Molothrus ater*) nest parasitism.

There are no documented occurrences within 7.0 miles of the HCP Permit Area (CDFG 2012, Service 1998a). The closest record of this species is 55 miles east of the eastern end of the HCP Permit Area (CDFW 2013). There is no critical habitat for the species within Tulare County. Eight acres of suitable riparian habitat occur within the Permit Area.

Non-protocol surveys conducted in 2011 and protocol surveys conducted in 2012 within suitable habitat in the HCP Permit Area did not detect least Bell's vireos (Quad Knopf 2012b). The focused survey report concluded that habitat conditions at St. John's River and Cottonwood Creek within the HCP Permit Area are marginal for this species. The least Bell's vireo prefers early successional riparian vegetation which supports a dense shrub cover within 3–6 feet of the ground and a dense stratified canopy for nesting and foraging. The habitat along St. John's River within the HCP Permit Area primarily consists of mature riparian habitat with a sparse understory layer with few patches of dense shrubby areas, or dense shrubby areas without a stratified canopy layer. These habitat conditions along the St. John's River are not ideal for the least Bell's vireo. The habitat along Cottonwood Creek within the HCP Permit Area consists mostly of mature riparian habitat with a sparse understory, or with younger growth which tends to provide the denser understory layer but is frequently interrupted with large patches of open space. These habitat conditions along Cottonwood Creek are not ideal for the least Bell's vireo.

Environmental Consequences

Environmental consequences for least Bell's vireo would be the same as for southwestern willow flycatcher as the same habitat is utilized by both species.

8.3.10 San Joaquin Kit Fox (FE, SE)

Affected Environment

The San Joaquin kit fox (*Vulpes macrotis*) is both federally and state-listed endangered. It is adapted to arid land and occurs in habitats characterized by sparse or absent shrub cover, sparse ground cover, and short vegetative structure (Service 2010). The historical range of San Joaquin kit fox included the San Joaquin Valley floor and the gradual slopes of the surrounding foothills from southern Kern County north to Tracy in San Joaquin County, and portions of the inner Coast Ranges, such as the Carrizo Plain, Salinas Valley, Temblor Range, Cholame Hills, and Elkhorn Plain (Service 1998b). Within this historic range, the species utilized alkali scrub/shrub and arid grasslands over open level, sandy ground that was relatively stone free to a depth of 3–5 feet (Service 2010). Areas where water tables are high, or soils have impenetrable hardpans or are shallow typically have had little or no denning use by kit foxes (Service 1998b).

The present-day distribution consists of fragmented populations that use remaining natural lands, mostly from Merced County southward to southern Kern County. The kit fox currently occurs in very low abundances along the western foothills of the Sierra Nevada range, at least as far north as southeastern Stanislaus County near LaGrange. The largest remaining populations occur in western Kern County in and near the Elk Hills and the Buena Vista Valley, as well as in the Carrizo Plain in San Luis Obispo County (Service 1998b).

Within the range of San Joaquin kit fox, occupied habitat has included isolated pockets of natural vegetation in the valley floor in Kern, Kings, Tulare, Fresno, Madera, and Merced Counties. Kit fox occurrence has also been documented in the interior valleys of Monterey, San Benito, and Santa Clara Counties, and in the upper Cuyama watershed of Ventura, San Luis Obispo, and Santa Barbara Counties. The species occurs in low numbers along the foothills in Tulare County (Service 2010).

San Joaquin kit fox have large home ranges especially in disturbed areas (such as in the foothills along the eastern portion of the San Joaquin Valley). It is suspected that extremely large home range sizes are frequent along the foothills of the Sierra Nevada where San Joaquin kit foxes occur at low densities (Service 2010). Home ranges for this species near the HCP Permit Area have been documented to be over 2,800 acres (Service 2010). Dens can be more than 2 miles from each other.

The San Joaquin kit fox is reputed to be a poor digger and dens are usually found in areas with loose-textured, friable soils (Morrell 1972; O’Farrell 1983). Characteristics of dens (e.g., number of openings, shape, slope, aspect) vary across the fox’s geographic range. Most dens are located in flat terrain or on the lower slopes of hills that are free from periodic inundation and/or not consistently saturated soils. Dens are used for shelter, protection, and rearing of young (Service 1998b), and may be used year round. San Joaquin kit foxes modify and occupy dens constructed by other animals, such as ground squirrels and coyotes, and have been known to use human-made structures as den sites (e.g., culverts, abandoned pipelines, or banks in sumps or roadbeds) (Service 1998b, 2010). Most studies indicate that the majority of individuals create dens by enlarging California ground squirrel or American badger (*Taxidea taxus*) burrows (Jensen 1972; Morrell 1972; Orloff et al. 1986; Service 2010).

The San Joaquin kit fox is primarily nocturnal and has an average home range of 1.0–2.5 square miles (1,600 acres) (Knapp 1978; Morrell 1972; Haight et al. 2002). Adult foxes are usually solitary during late summer and fall, and by September and October, adult females begin to excavate, clean, and enlarge their pupping dens. Mating occurs between December and March (Service 1998b) and pups are typically born in late February or early March (Egoscue 1962; Morrell 1972). Pups usually emerge from dens in March and April and begin foraging for themselves between June and August, dispersing shortly thereafter in August or September (Morrell 1972; Service 2010).

San Joaquin kit fox can tolerate human disturbances and to a minimal extent will use developed land cover for denning and agricultural lands for foraging and movement (including migration). However, the use of agricultural lands by San Joaquin kit fox depends on habitat openness, prey composition and density, and den refugia opportunities (Service 2010).

In the first kit fox 5-Year Review, the Service (2010) updated goals of the 1998 species recovery plan to better describe corridors along the Sierra foothills that could connect the fragmented populations within the species range. Annual grassland and other types of natural land cover are most suitable denning, movement, and foraging habitat for San Joaquin kit fox.

The entire HCP Permit Area may provide suitable habitat for the San Joaquin kit fox (except for developed and aquatic land cover types), since it is in the historical range of the species, and kit fox are known to utilize a variety of disturbed and natural habitats. However, kit fox use of agricultural and developed land cover is limited, and agricultural land is not suitable for long-term use (Service 2010). Kit fox use of agricultural land cover is primarily for foraging and movement, and is concentrated near field edges and where agricultural land borders grassland (Service 2010). The portion of the HCP Permit Area east of the Friant–Kern Canal has higher quality habitat for San Joaquin kit fox since it is part of more continuous area of natural grassland vegetation with fewer barriers to kit fox movement.

Eight occurrences of the San Joaquin kit fox have been documented within 6 miles of the HCP Permit Area (CDFW 2013) (Figure 8-16). All documented occurrences are from incidental observations between 1972 and 1994 and not based on protocol surveys conducted in this area of Tulare County. One of the records (1988) documents a San Joaquin kit fox within the HCP Permit Area.

Quad Knopf (2011h) conducted USFWS protocol-level surveys for San Joaquin kit fox in 2011 in suitable habitat within the HCP Permit Area. This survey included scent stations with and without cameras, spotlight surveys, and den surveys. No San Joaquin kit fox were observed during these surveys. Figure 8-16 provides the location of potential dens found during the surveys. Kit fox construction monitoring (Service 2011) at the Big Creek Rebuild site in the west half of the north–south portion of the HCP Permit Area was conducted during the summer and fall of 2012, and no kit fox or kit fox sign was observed.

There are 1,857 acres of agricultural land cover types that provide foraging and movement habitat and 1,034 acres of annual grassland that provides movement, foraging, and denning habitat for San Joaquin kit fox within the HCP Permit Area.

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

No Action Alternative

Under the No Action Alternative, development within the study area would continue to occur as prescribed by local regulations and planning documents. East of the Friant–Kern Canal, areas currently supporting natural land covers (including annual grassland, riparian and agricultural habitat) are within the Foothill Growth Management Plan and Rural Valley Lands Plan zoned for agriculture and mixed use (County of Tulare 2012). West of the Friant–Kern Canal, the study area is zoned for agricultural uses similar to existing conditions. There is a possibility that future development may result in loss of grassland, riparian and agricultural habitat, take of San Joaquin kit fox, and/or indirect effects to San Joaquin kit fox, although future agricultural development may also provide foraging and movement habitat.

Development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia, and would be required to prepare CEQA documentation as projects with discretionary actions are proposed. Projects would be individually required to mitigate any potentially significant effects to San Joaquin kit fox. Additionally, the project proponent would need to apply for a permit from the Service to authorize the incidental take of

federally listed species. The permit would be developed to implement a conservation plan that will avoid, minimize, and compensate for potential adverse effects on threatened and endangered species and provide a basis for take authorization pursuant to the ESA.

Determination

Under the No Action Alternative, foreseeably future development could result in direct and indirect effects to San Joaquin kit fox. With implementation of avoidance, minimization, and mitigation measures that would be prescribed pursuant to CEQA as well as conservation strategies associated with an incidental take permit from the Service, the No Action Alternative would not result in significant adverse effects.

Proposed Action Alternative

Direct and Indirect Effects

Construction Covered Activities

Under the proposed action, construction Covered Activities would result in permanent direct effects on approximately 41 acres of annual grasslands suitable for foraging, denning, and breeding; and 11.7 acres of agricultural land cover types suitable for foraging and movement. Construction Covered Activities may also result in the harassment, harm, or mortality of San Joaquin kit fox, disrupt foraging activities, affect usage of burrows, collapse or crush burrows, or result in increased collision with vehicles. Covered Activities would result in temporary direct effects to 34.8 acres of grassland and 55.1 acres of agricultural land covers.

Construction Covered Activities could also result in indirect effects to San Joaquin kit fox habitat via introduction of invasive species and noxious weeds, increased accumulation of trash, vegetation and soil disturbance in the vicinity of burrows, increased visibility of burrows to predators, and increased public access. Spread of invasive non-native plants may occur by introducing seed from other sites via vehicles and construction equipment. Soil disturbance in the vicinity of burrows could result in collapse or crushing of burrows and potentially harming individual San Joaquin kit fox. Clearing and grubbing activities in annual grasslands could result in exposure of active burrows to predators and humans. Creation and improvement of access roads could increase public access to the HCP Permit Area, which would further contribute to adverse direct and indirect effects to San Joaquin kit fox habitat by providing additional mechanisms for noise disturbance, release of invasive species, collisions with vehicles and collapse of kit fox dens; consequently, these factors could attribute to injury or mortality of San Joaquin kit fox and/or kit fox avoiding suitable habitat available in the HCP Permit Area. Increased trash accumulation could increase the number of predators such as coyotes that could affect San Joaquin kit fox.

The proposed action includes conservation strategies which would reduce potential adverse effects to San Joaquin kit fox habitat and individuals. Direct effects would be minimized through avoidance of San Joaquin kit fox habitat through implementation of AMMs including inventorying sensitive resources (PD-1) and siting project features far away from active burrows (PD-2), conducting environmental awareness training for workers (C-1), and establishing environmentally sensitive areas (C-3). Additionally, species-specific measures were developed to ensure that San Joaquin kit fox were protected. These measures include conducting pre-construction surveys (SJKF-1), avoiding suitable dens including a buffer (SJKF-2), ensuring SJKF do not become trapped in trenches, holes, or construction equipment or material (SJKF-3, SJKF-4); and monitoring San Joaquin kit fox in proximity to construction activities (SJKF-5). Direct effects would be mitigated by the purchase of off-site habitat (SJKF-7) for permanent and temporary disturbance to annual grassland habitat and agricultural lands that also provide habitat.

Indirect effects to San Joaquin kit fox would be minimized by restricting vehicle speeds (C-4); prohibiting pets which can harass, harm, or kill San Joaquin kit fox (C-5); implementing a noxious weed and invasive plant control plan (C-6); trash management to avoid attracting predators (C-10); constructing locking gates on access roads (C-11); and restricting rodenticide use (SJKF-6).

Operations and Maintenance Covered Activities

Class I O&M activities would be conducted entirely within the drivable surface of access roads, pads, or from aircraft, and would not disturb plants or the soil surface in natural vegetation; however, there would be indirect effects from Class I O&M activities to San Joaquin kit fox habitat by way of noise, dust, and possible collisions with vehicles. Other indirect effects from Class I O&M activities would include potential for increased spread of invasive weed species due to the increased presence of personnel and equipment.

Class II O&M activities are conducted in part in natural vegetation outside of pads and roads, and would disturb vegetation and soil in those areas. Class II O&M activities would result in temporary direct effects to 17.6 acres of annual grassland suitable for denning, foraging, and breeding; and 14.9 acres of agricultural land covers suitable for foraging and movement. Indirect effects to San Joaquin kit fox for Class II O&M activities would be similar to indirect effects from construction Covered Activities. Direct and indirect effects would be minimized through implementation of an O&M Environmental Compliance Plan (O&M-1), mapping environmentally sensitive areas (O&M-3), conducting pre-activity surveys and monitoring (O&M-5), staying on existing access roads (O&M-6), restricting vehicle speeds and travel (O&M-7), prohibiting pets (O&M-8), revegetating temporarily disturbed areas (O&M-12), removing trash (O&M-13), implementing a noxious weed and invasive plant control plan (O&M-14), conducting San Joaquin kit fox surveys (SJKF-1), monitoring activities near active dens (SJKF-5), and restricting rodenticide use (SJKF-6).

Determination

The proposed action would result in direct and indirect effects to San Joaquin kit fox and its habitat. However, with implementation of the above-mentioned O&M measures, species-specific measures (SJKF-1 through 6), and implementation of the conservation strategy in the HCP, the proposed action is not expected to have a significant adverse effect on this species.

Cumulative Effects

The geographic scope for the San Joaquin kit fox cumulative effects analysis consists of annual grasslands and agricultural land uses within the extent of the cumulative projects list. Reasonably foreseeable projects would primarily affect agricultural and developed land covers (see Figure 7-4). Maintaining agricultural uses in the region is a goal of local planning documents and policies; therefore, future projects would have to comply with these goals to maintain agricultural uses. Furthermore, the proposed action would not result in a substantial reduction in agricultural land cover. Of the reasonably foreseeable future projects, only Project 75 (Yokohl Ranch) would affect a large area of grassland/herbaceous land cover (see Figure 7-4) and in and of itself may significantly contribute to adverse effects to this land cover; however, the contribution of the proposed action to the cumulative effect is negligible. With integration of the conservation strategy, the proposed action's contribution to the cumulative adverse effect on annual grassland and agricultural land covers, and therefore to San Joaquin kit fox habitat, would not be cumulatively considerable.

8.3.11 San Joaquin Valley Orcutt Grass (FT, SE)

Affected Environment

San Joaquin Valley Orcutt grass (*Orcuttia inaequalis*) is federally listed threatened, state-listed endangered, and classified as CRPR 1B.1 (rare, threatened or endangered in California and elsewhere, seriously endangered in California) (CNPS 2012). San Joaquin Valley Orcutt grass occurs at elevations from 33–2,477 feet above mean sea level (amsl), and the blooming period is April through September (CNPS 2012). The primary habitat for San Joaquin Valley Orcutt grass is vernal pools, which is a unique habitat that provides substantial water to allow germination and growth of the plant in the winter, but dries out in the summer and fall months. San Joaquin Valley Orcutt grass occurs primarily in Northern Claypan, Northern Hardpan, and Northern Basalt Flow vernal pools (Sawyer and Keeler-Wolf 1995); on alluvial fans, high and low stream terraces (Stone et al. 1988); and tabletop lava flows (Stebbins et al. 1995). The predominant physiographic and edaphic settings for this species include high terrace sites with the Redding soil series, lower terraces with San Joaquin soil series, and sites with shallow, residual soils of the Pentz series underlain by well-cemented tuffaceous alluvium (Service 2005). Populations of San Joaquin Valley Orcutt grass occur on Riverbank, North Merced Gravels, and Mehrten

geological surfaces, which could relate to those soil surfaces that support larger pools (Service 2005). All soils underlying pools containing San Joaquin Valley Orcutt grass populations are acidic, but vary in texture from clay to sandy loam.

The Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon covers the San Joaquin Valley Orcutt grass (Service 2005). This recovery plan seeks to protect known and potential habitat (vernal pools) for this species; to promote HCPs in areas potentially containing this plant as well as other vernal pool species; and strives to manage, restore, and/or create habitats, and to implement monitoring of populations to ensure long-term survival and recovery.

There are four areas designated as critical habitat for the San Joaquin Valley Orcutt grass within 5 miles of the HCP Permit Area. Two of these intersect the eastern portion of the HCP Permit Area for a total area of approximately 860 acres of critical habitat within the HCP Permit Area (Figure 8-18). The primary constituent element for an area to be designated as critical habitat for San Joaquin Valley Orcutt grass is the presence of vernal pools, or a wet feature that closely mimics vernal pools, such as swales. Additionally, contiguous vernal pool habitat that has limited fragmentation due to agriculture or urban development was identified as optimum areas to be designated as critical habitat for the species.

San Joaquin Valley Orcutt grass has been extirpated from Stanislaus County but remains in Fresno, Madera, Merced, and Tulare Counties (USFWS 2005). Tulare County populations are known from the Ivanhoe and Monson U.S. Geological Survey quadrangles (CDFW 2013). There are nine documented occurrences within 7.0 miles of the HCP Permit Area. Populations are known to occur at the CDFW Stone Corral Ecological Reserve near Sequoia Field, approximately 3.75 miles west of the HCP Permit Area (CDFW 2013) (Figure 8-18). In addition, a known but potentially extirpated occurrence may overlap with the HCP Permit Area east of the Friant–Kern Canal. The accuracy of this mapped location is 1 mile, which means that this occurrence may not actually have been present within the HCP Permit Area (CDFW 2013).

Vernal pools and swales within annual grassland in the eastern portion of the HCP Permit Area provide suitable habitat for this species. San Joaquin Valley Orcutt grass was not observed during focused rare plant surveys conducted in 2010 and 2011 in the HCP Permit Area (Quad Knopf 2011d, 2011e).

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

No Action Alternative

Under the No Action Alternative, new urban growth and development within the study area would continue to occur as prescribed by local regulations and planning documents. Vernal pool and grassland habitat east of the Friant–Kern Canal could be converted to developed and agricultural uses in conformance with the Foothill Growth Management Plan and Rural Valley Lands Plan (County of Tulare 2012). Because San Joaquin Orcutt grass does not occur within the HCP Permit Area, future development would not result in take of the species. There is a possibility that future development may result in loss of vernal pool habitat and/or indirect effects to vernal pool habitat suitable for San Joaquin Orcutt grass.

Development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia, and would be required to prepare CEQA documentation as projects with discretionary actions are proposed. Projects would be individually required to mitigate any potentially significant effects to vernal pool habitat. Additionally, the project proponent would need to conduct surveys for San Joaquin Orcutt grass and apply for a permit from the Service to authorize the incidental take of federally listed species if it is present. The permit would be developed to implement a conservation plan that will avoid, minimize, and compensate for potential adverse effects on threatened and endangered species.

Determination

Under the No Action Alternative, foreseeably future development could result in direct and indirect effects to vernal pool habitat. With implementation of avoidance, minimization, and mitigation measures that would be prescribed pursuant to NEPA as well as conservation strategies associated with an incidental take permit from the Service, the No Action Alternative would not result in significant adverse effects.

Proposed Action Alternative

Construction Covered Activities

San Joaquin Valley Orcutt grass was not identified during focused plant surveys conducted in 2010 and 2011, and therefore, the proposed action would not result in direct effects or take to individuals of this species. However, critical habitat for this species does overlap the HCP Permit

Area, and the proposed action would result in adverse modification to constituent elements of designated critical habitat for San Joaquin Valley Orcutt grass. Constituent elements affected by construction Covered Activities include the loss of 0.14 acre of vernal pool habitat, fill and grading of 7.69 acres of annual grassland associated with vernal pool habitat, and temporary effects to an additional 0.14 acre of vernal pool habitat and 6.07 acres of annual grassland.

Indirect effects could occur from alteration of the watershed of a suitable water feature, water degradation, and introduction of invasive species including noxious weeds. Alteration of the watershed would occur from placement of pads and structures and associated water control structures upstream of a water feature which would change the surface flow to the water feature. Water degradation may occur from inadvertent release of pollutants, such as fuels and lubricants, due to leakage from construction equipment or from increased erosion and deposition of sediment. Spread of invasive non-native plants may occur by introducing seed from other sites via vehicles and construction equipment. The creation of access roads could increase public access to the HCP Permit Area. Increased use of the area would further contribute to adverse indirect effects to vernal pool habitat by providing additional mechanisms for release of pollutants and invasive species; increasing soil disturbance in the watershed of a water feature resulting in increased sedimentation to the pool; and soil disturbance within the pool. The proposed action would permanently affect 3.56 acres of buffer contributing to indirect effects to vernal pool habitat.

The proposed action includes conservation strategies for San Joaquin Valley Orcutt grass which would reduce potential adverse effects. Direct effects would be minimized through avoidance of vernal pool habitat through siting project components outside of vernal pools (PD-2), establishing environmentally sensitive areas (C-3), and monitoring activities within 500 feet of vernal pool habitat (VP-2). Permanent direct effects would also be mitigated by preserving in perpetuity an area greater than the area impacted (VP-3). Effects to San Joaquin Valley Orcutt grass habitat and primary constituent elements of SJVOC critical habitat would be mitigated through implementation of the HCP.

Indirect effects would be minimized through avoidance of sediment loading near waterways (PD-3), restricting vehicle speeds (C-4), implementing a noxious weed and invasive plant control plan (C-6), restricting equipment fueling and maintenance near waterways (C-8), controlling erosion near waterways and occupied habitat (C-9), and constructing locking gates on access roads (C-11). Additionally, a 250-foot buffer around avoided habitat would also be marked, and avoided and monitored (VP-1 and VP-2) in order to maintain the existing hydrological integrity of vernal pools/swales, which are primary constituent elements for San Joaquin Valley Orcutt grass.

O&M Covered Activities

Class I O&M activities would be conducted entirely within the drivable surface of access roads, pads, or from aircraft, and would not disturb plants or the soil surface in natural vegetation; therefore, there would be no direct effects from Class I O&M activities to vernal pool habitat. O&M Activity 1-6, Insulator Washing, involves the washing of polymer insulators on tower structures on an as-needed basis anticipated to be one to ten structures per year. Washing is conducted with a fine mist which evaporates prior to reaching the ground; however, water collecting on the tower structure would drip to the ground. There may be some runoff to downstream vernal pool habitat; however, due to the low number of tower structures to be washed each year and the limited use of water for the washing, this activity would not substantially affect the hydrology of nearby vernal pool habitat. Other indirect effects from Class I O&M activities would include potential for increased spread of invasive weed species due to the increased presence of personnel and equipment.

Class II O&M activities would result in temporary direct effects to 0.08 acre of vernal pool habitat and 3.32 acres of annual grassland associated with vernal pool habitat. Indirect effects to San Joaquin Valley Orcutt grass for Class II O&M activities would be similar to indirect effects from construction Covered Activities and include potential for water degradation and increased spread of invasive species.

The conservation strategy for San Joaquin Orcutt grass includes measures to minimize adverse effects from O&M activities. Permanent direct effects would be mitigated by implementation of VP-3, preserving in perpetuity an area greater than the area impacted. Direct and indirect effects would be minimized through implementation of an O&M Environmental Compliance Plan (O&M-1), mapping of environmentally sensitive areas (O&M-3), conducting pre-activity surveys and monitoring (O&M-5), staying on existing access roads (O&M-6), and restricting vehicle speeds and travel (O&M-7). Indirect effects would be further minimized by restricting equipment fueling and maintenance near waterways (O&M-9), controlling erosion near waterways and occupied habitat (O&M-10), revegetating temporarily disturbed areas (O&M-12), and implementing a noxious weed and invasive plant control plan (O&M-14). The conservation strategy would reduce direct and indirect effects to critical habitat such that they would be adverse but not significant.

Determination

The proposed action would result in direct and indirect effects to San Joaquin Valley Orcutt grass suitable habitat and modification of primary constituent elements of critical habitat. However, these effects would be relatively small in size and indirect effects of short duration. In addition, with implementation of AMM VP-1 through VP-3, the above-mentioned O&M

measures, and the conservation strategy in the HCP, implementation of the proposed action is not expected to have a significant adverse effect on this species.

Cumulative Effects

The geographic extent of the cumulative effects analysis consists of San Joaquin Valley Orcutt grass critical habitat within the cumulative projects list. Reasonably foreseeable future projects overlap critical habitat. Vernal pool habitat is a sensitive community that supports state and federal listed species; therefore, future projects that affect vernal pool habitat and critical habitat would be required to avoid, minimize, and mitigate for these effects. The Service concludes that the small incremental effects of the proposed permit action and HCP on San Joaquin Valley Orcutt grass habitat in the HCP Permit Area, when added to the effects of the past, present, and reasonably foreseeable future projects, are not considered cumulatively considerable.

8.3.12 Hoover's Spurge (FT)

Affected Environment

Hoover's spurge (*Chamaesyce hooveri*) is federally listed threatened and classified as a CRPR 1B.2 species (rare, threatened, or endangered in California and elsewhere; CNPS 2012). This plant is restricted to vernal pool habitats. It is typically found within alluvial fans or historic river terraces on neutral to saline-alkaline soils. The distribution of this species is limited to the eastern border of the San Joaquin Valley. The Hoover's spurge blooming period is between July and October, when vernal pools are dry, and ranges in elevation from 82–820 feet amsl.

Hoover's spurge is addressed in the Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon (USFWS 2005). Seven areas within Tulare County are designated as critical habitat for Hoover's spurge. All the critical habitat within Tulare County is within 5 miles of the east–west portion of the HCP Permit Area. Additionally, the HCP Permit Area contains 861.8 acres of critical habitat for Hoover's spurge; 1.13 acres are located west of the Friant–Kern Canal in unit 7B, and the remainder are located in east of Friant–Kern Canal in units 7C and 7D. The primary constituent element for Hoover's spurge is vernal pools, or a wet feature that closely mimics vernal pools, such as swales, and the watershed associated with each vernal pool or wet feature.

The vernal pool land cover provides suitable habitat for Hoover's spurge within the HCP Permit Area. There are no documented occurrences of Hoover's spurge within the HCP Permit Area. The CNDDB includes 29 occurrences within 7.0 miles of the project site, the nearest approximately 1.1 miles to the northwest (CDFW 2013). Hoover's spurge was not observed during focused plant surveys conducted in 2010 and 2011 (Quad Knopf 2011d, 2011e).

Environmental Consequences

Suitable habitat and primary constituent elements for Hoover's spurge are the same as for San Joaquin Valley Orcutt grass; therefore, environmental consequences for Hoover's spurge are the same as for San Joaquin Orcutt grass.

8.3.13 Spiny-Sepaled Button-Celery (CRPR 1B.2)

Affected Environment

The spiny-sepaled button celery (*Eryngium spinosepalum*) is classified as CRPR 1B.2 species (rare, threatened, or endangered in California and elsewhere; CNPS 2012). Spiny-sepaled button celery occurs in eleven counties throughout the San Joaquin Valley (Service 2005). There are fifteen historic records of spiny-sepaled button celery occurring in Tulare County (CDFW 2013). Spiny-sepaled button celery is associated with vernal pools, swales, and depressions within grasslands, blooms during April and May, and has an elevation range of 262–837 feet amsl. This species will flower after the wet season and when there is little to no standing water.

Spiny-sepaled button celery was previously federally listed as a candidate species and is addressed in the Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon as a species with the goal to “ensure the long-term conservation of the species” (Service 2005). This recovery plan seeks to protect known and potential habitat (vernal pools) for this species, promote HCPs in areas potentially containing this plant as well as other vernal pool species, and manage, restore, and/or create habitats, and monitor populations to ensure long-term survival and recovery. The eastern portion of the HCP Permit Area is within the San Joaquin Valley vernal pool region (Service 2005), but it is not within any core area that is identified within the recovery plan.

The CNDDB includes 44 occurrences within 7.0 miles of the project site, the nearest approximately 0.2 mile to the north (CDFW 2013). Rare plant surveys conducted in 2010 and 2011 detected this species at multiple locations within the HCP Permit Area (Quad Knopf 2011d, 2011e). Fifty-eight new locations occupied by spiny-sepaled button-celery were found in the HCP Permit Area east of the Friant–Kern Canal, and encompassed 19.46 acres (Quad Knopf 2011e).

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

No Action Alternative

Under the No Action Alternative, vernal pool and grassland habitat east of the Friant–Kern Canal could be converted to developed and agricultural uses in conformance with the Foothill Growth Management Plan and Rural Valley Lands Plan (County of Tulare 2012). There is a possibility that future development may result in loss of spiny-sepaled button celery habitat, loss of spiny-sepaled button celery individuals, and/or indirect effects to spiny-sepaled button celery and its habitat.

Development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia, and would be required to prepare CEQA documentation when projects with discretionary actions are proposed. Projects would be individually required to mitigate any potentially significant effects to spiny-sepaled button celery.

Determination

Under the No Action Alternative, reasonably foreseeable future development could result in direct and indirect effects to spiny-sepaled button celery. With implementation of avoidance, minimization, and mitigation measures that would be prescribed pursuant to NEPA, the No Action Alternative would not result in significant adverse effects.

Proposed Action Alternative

Spiny-sepaled button celery was identified during focused plant surveys conducted in 2010 and 2011, and therefore, occupied habitat of this species would be directly effected by implementation of the Proposed Action. Although this species is not federally listed, it is listed by CNPS as CRPR 1B.2 and there is a reasonable chance that it could be listed during the HCP permit period.

Spiny-sepaled button celery was inventoried during design of the Cross Valley Transmission Line (AMM PD-1); facilities were sited to avoid or minimize effects to occupied habitat to the extent feasible (AMM PD-2); and roads were designed to avoid sediment loading to surface waterways, such as vernal pools (AMM PD-3). Nonetheless, not all habitat for spiny-sepaled button celery would be avoided, and construction, operation, and maintenance activities could adversely modify this plant's habitat.

Construction Covered Activities

Grading, clearing and grubbing associated with construction of the Cross Valley Transmission Line would eliminate all spiny-sepaled button-celery habitat within facility footprints because these areas would be permanently converted to non-habitat. Grading of work areas would also result in permanent loss of occupied habitat for spiny-sepaled button-celery. Vernal pools/swales in graded work areas would be permanently lost because grading will alter topography and can permanently disturb the underlying impermeable soil layer of this land cover type. Basins/stock ponds are features created by grading that are dependent on the existing (graded) topography; thus, grading of work areas would eliminate this land cover type. Puddles would also be eliminated by grading of work areas, although the use of heavy machinery and vehicles may also create new puddles. Construction Covered Activities within both facility footprints and graded work areas would result in the permanent loss of up to 1.20 acres of occupied spiny-sepaled button-celery habitat. The proposed action includes a conservation strategy to reduce potential direct effects to spiny-sepaled button-celery including mapping of environmentally sensitive areas (CM C-3), performing worker environmental awareness training (CM C-1), marking and monitoring buffers for vernal pool/swale habitats (measures VP-1 and VP-2), and restricting herbicide applications within 100 feet of spiny-sepaled button-celery to spot applications developed in coordination with USFWS (SSBC-2).

During construction, work areas that are not graded, but are temporarily disturbed, may impact up to 0.80 acre of spiny-sepaled button-celery habitat. The transient disturbance of vegetation and the soil surface in these work areas would not sufficiently alter the inundation of vernal pools/swales, basins/stock ponds, or puddles to reduce their suitability for spiny-sepaled button-celery in subsequent years; nor will grassland occupied by spiny-sepaled button-celery be permanently affected. All work areas would be revegetated following construction.

Construction Covered Activities could indirectly affect 4.58 acres of spiny-sepaled button-celery occupied habitat that is within 250 feet of areas graded by construction Covered Activities. These indirect effects could occur through water quality degradation from the release of toxins such as fuels, lubricants, or solvents; facilitating the spread of invasive plants; increasing human activity in the HCP Permit Area; and altering the hydrology of vernal pools/swales through effects to their watershed.

Indirect effects would be avoided through the implementation of avoidance and minimization measures including the restriction of fueling and maintenance of vehicles within 100 feet of a waterway (AMM C-8), erosion control measures (AMM C-9), control of the introduction and spread of invasive plants (AMM C-6), and by constructing locking gates on access roads (AMM C-11). Hydrologic alterations may not have a substantial effect on spiny-sepaled button-celery populations. This plant, although associated with vernal pools, grows in a range of hydrologic

settings. This range of habitats is evidenced by its distribution in the HCP Permit Area, where it is not restricted to vernal pools. Therefore, the extent of indirect effects on this occupied habitat would not be significant and adverse.

O&M Covered Activities

Class 1 O&M Covered Activities would be conducted entirely within the drivable surface of roadways or from aircraft and would not result in ground or vegetation disturbance; therefore, they would have no significant adverse effect on populations of spiny-sepaed button-celery. Class 2 O&M Covered Activities, which include major repairs, road maintenance, and vegetation management, would involve ground disturbance and could temporarily affect occupied habitat. Incorporation of avoidance and minimization measures, including preparation of an Operation and Maintenance Environmental Compliance Plan (AMM O&M-1), conducting worker environmental awareness training (AMM O&M-2), mapping of environmentally sensitive areas (AMM O&M-3), pre-activity surveys (AMM O&M-5), using existing roads to the extent feasible (AMM O&M-6), restricting off-road travel outside of work areas (AMM O&M-7), and revegetating temporarily disturbed areas (AMM O&M-12) would reduce direct impacts to occupied habitat. Nonetheless, O&M Covered Activities could still result in up to up to 0.08 acre of temporary disturbance to occupied spiny-sepaed button-celery habitat. These areas would be revegetated following disturbance.

O&M Covered Activities could indirectly affect suitable and occupied habitat for spiny-sepaed button-celery by affecting water quality and facilitating the spread of invasive plants. However, the incorporation of avoidance and minimization measures, including control of the introduction and spread of invasive plants (AMM C-6), restriction of fueling and maintenance of vehicles within 100 feet of a waterway (AMM C-8), and erosion control measures (AMM C-9) would reduce indirect effects to suitable and occupied habitat such that they would not result in significant adverse effect.

Determination of Significance

Covered Activities would result in direct and indirect effects to occupied habitat for spiny-sepaed button celery within the HCP Permit Area. However, these effects would be relatively small in size and indirect effects of short duration. In addition, with implementation of the above-mentioned O&M measures and the conservation strategy in the HCP, implementation of the proposed action is not expected to have a significant adverse effect on this species.

Cumulative Effects

Vernal pool habitat is a sensitive community that supports state- and federally listed species; therefore, future projects that affect vernal pool habitat would be required to avoid, minimize,

and mitigate for these effects. Cumulative effects to spiny-seplaed button celery would be similar to the other vernal pool plant species discussed above. With implementation of the proposed HCP, the Service concludes that the small incremental effects of the proposed permit action and HCP on spiny-button celery in the HCP Permit Area, when added to the effects of the past, present, and reasonably foreseeable future projects, are not cumulatively considerable.

8.4 OTHER SPECIAL-STATUS SPECIES

8.4.1 Blainville's Horned Lizard (CSC)

Affected Environment

Blainville's horned lizard (*Phrynosoma blainvillii*) is a California Species of Concern. This species occurs in a wide variety of habitats in open areas of sandy soil and low vegetation in valleys, foothills, and semiarid mountains from sea level up to 2,438 meters (8,000 feet) in elevation (Stebbins 2003). Blainville's horned lizards require open areas for sunning, shrubs for cover, patches of loose soil for burial, and an abundant supply of ants and other insects. The known range extends along the Sierra Nevada foothills along the length of Tulare County.

Surveys were not conducted for Blainville's horned lizard and this species was not observed during general biological surveys of the HCP Permit Area. Although there are no documented occurrences within 7 miles of the HCP Permit Area (CDFW 2013), 1,048 acres of annual grassland located in the HCP Permit Area provide suitable habitat for Blainville's horned lizard.

Due to the presence of suitable habitat, this species has a moderate potential to occur within the HCP Permit Area.

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

No Action Alternative

Under the No Action Alternative annual grassland occupying the eastern portion of the HCP Permit Area could be converted to developed or agricultural land uses in conformance with the Foothill Growth Management Plan and Rural Valley Lands Plan (County of Tulare 2012). There is a possibility that future development projects may result in direct loss of habitat for Blainville's horned lizard, and/or direct and indirect effects to the Blainville's horned lizard.

Development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia, and would be required to prepare CEQA documentation as projects with discretionary actions are proposed. Projects would be individually required to mitigate any potentially significant effects to special-status species, including Blainville's horned lizard.

Determination

Under the No Action Alternative, foreseeably future development could result in direct and indirect effects to Blainville's horned lizard. With implementation of avoidance, minimization, and mitigation measures that would be prescribed pursuant to CEQA, the No Action Alternative would not result in significant adverse effects.

Proposed Action Alternative

Construction Covered Activities would result in the permanent loss of 40.96 acres of annual grasslands which provides suitable habitat for Blainville's horned lizard. Construction Covered Activities could also result in indirect effects to this species and its habitat through the introduction of invasive species and noxious weeds, increased trash, vegetation and soil disturbance, and improved public access. Spread of invasive nonnative plants may occur through movement of vehicles and construction equipment. Increased accumulations of trash could potentially attract additional predators such as ravens and foxes. Soil and vegetation disturbance could result in the entrapment, crushing, or harm to Blainville's horned lizard. The creation and improvement of access roads could increase public access to the HCP Permit Area, which could further contribute to adverse direct and indirect effects to Blainville's horned lizard habitat by providing additional mechanisms for noise disturbance, vehicle activity, dust, and spread of invasive species. As a result, these factors could attribute to Blainville's horned lizard avoiding suitable habitat available in the HCP Permit Area.

The Proposed Action does not include a conservation strategy for Blainville's horned lizard; however, conservation strategies developed for California tiger salamander and western spadefoot toad for upland aestivation and foraging habitat would be of benefit to Blainville's horned lizard. Direct effects would be further minimized through implementation of AMMs during Covered Activities (PD-1 through PD-3), conducting environmental awareness training (C-1), and limiting vehicle speeds and access (C-4). Two additional AMMs, developed specifically for conservation of California tiger salamanders and western spadefoot toads, would reduce direct effects by conducting pre-activity clearance surveys to ensure that Blainville's horned lizards are not present and by covering excavated holes and trenches to avoid trapping horned lizards. Indirect effects would be minimized through implementing a

noxious weed and invasive plant control plan (C-6) and constructing locking gates on access roads to reduce public access (C-11).

Operations and Maintenance Covered Activities

Class I O&M activities would be conducted entirely within the drivable surface of access roads, TSP/LST pads, or from aircraft, and would not disturb plants or the soil surface in natural vegetation; however, there could be direct effects to horned lizards from crushing by vehicles and equipment. Class I O&M activities could also indirectly affect horned lizards through increased noise and dust, trash accumulations which can attract predators, increased spread of invasive species and noxious weeds, and by increased public use and associated affects.

Class II O&M activities are conducted in part in natural vegetation outside of pads and roads, and would disturb vegetation and soil in those areas. Class II O&M activities would result in permanent direct effects to some annual grasslands and potential habitat for Blainville's horned lizard. Indirect effects to Blainville's horned lizard for Class II O&M activities would be similar to indirect effects from construction Covered Activities including introduction of invasive species and noxious weeds, increased trash, vegetation and soil disturbance, and improved public access. Conservation strategy for California tiger salamander and western spadefoot toad would likewise minimize direct and indirect effects to Blainville's horned lizard from O&M Covered Activities.

Determination

There are 1,048 acres of potentially suitable habitat for Blainville's horned lizard within the HCP Permit Area. The Proposed Action would result in permanent direct effects to 40.96 acres of suitable habitat and temporary direct effects to 52.40 acres. The permanent loss of less than 3% of suitable habitat within the HCP Permit Area would not substantially reduce available suitable habitat. Additionally, the conservation strategy is expected to minimize and compensate potential direct and indirect effects to this species since the habitat type is being mitigated for through the HCP for the Covered Species; therefore, implementation of the proposed action is not expected to have a significant adverse effect on this species.

Cumulative Effects

The geographic scope for Blainville's horned lizard cumulative effects analysis consists of annual grasslands within the extent of the cumulative projects list. Reasonably foreseeable projects would primarily affect agricultural and developed land covers (see Figure 7-4). Of the reasonably foreseeable future projects, only Project 75 (Yokohl Ranch) would affect a large area of grassland/herbaceous land cover (see Figure 7-4) and, in and of itself, may significantly contribute to adverse effects to this land cover; however, the contribution of the proposed action to the cumulative effect is negligible. With integration of the conservation strategy, the proposed action's

contribution to the cumulative adverse effect on annual grassland and agricultural land covers, and therefore to Blainville's horned lizard habitat, would not be cumulatively considerable.

8.4.2 Silvery Legless Lizard (CSC)

Affected Environment

The silvery legless lizard (*Anniella pulchra pulchra*) is a California Species of Concern. This species range comprises the San Joaquin Valley from San Joaquin County south to Kern County and from near sea level to approximately 1,800 meters (5,905 feet) amsl in the Sierra Nevada foothills. Silvery legless lizards occur primarily underground, mostly in areas with sandy or loose loamy soils in areas underneath sparse vegetation on beach dunes, chaparral, pine-oak woodland and pine forests, and sandy washes; also near sycamores, cottonwoods, or oaks that grow on stream terraces (Zeiner et al. 1990; Stebbins 1985; Jennings and Hayes 1994) but may also seek cover under objects such as boards and rocks. Moisture is an essential requirement for this species. Silvery legless lizards feed on larval insects, beetles, termites, and spiders by concealing themselves beneath leaf litter or substrate and ambushing prey.

Records from the California Academy of Sciences suggest this species occurs in the vicinity of the HCP Permit Area east of the Friant–Kern Canal, as a result the Permit Area is assumed to be within the species range. Eight acres of suitable riparian habitat occur in the Permit Area for the silvery legless lizard. Due to the presence of suitable riparian habitat within the Permit Area, there is a moderate potential to occur.

CNDDDB includes no occurrences of silvery legless lizards within 7.0 miles of the Permit Area (CDFW 2013), and surveys were not conducted.

There are 8 acres of riparian habitat located in the Permit Area that provide potentially suitable habitat for this species.

Environmental Consequences

Because this species occurs in riparian habitat, environmental consequences would be similar to riparian bird species discussed in Sections 8.3.7 through 8.3.9. Additionally, since the silvery legless lizard remains primarily underground, potential direct and indirect effects would be further diminished. The No Action and Proposed Action Alternatives would not result in significant adverse effects to silvery legless lizard.

8.4.3 Southwestern Pond Turtle (CSC)

Affected Environment

The southwestern pond turtle (*Actinemys marmorata pallida*), a California Species of Concern, occurs broadly in the Sierra Nevada foothills and the San Joaquin Valley. The southwestern pond turtle is the only freshwater turtle native to most of the west coast of temperate North America. They occur from sea level to 6,000 feet (1,858 meters) from British Columbia south to northwestern Baja California, principally west of the Sierra-Cascade Crest. This species inhabits a wide range of fresh and brackish water habitats and is commonly found in woodlands, grasslands, and open forests in a variety of wetland habitats, including ponds, rivers, lakes, marshes, reservoirs, stock ponds, and irrigation ditches that contain aquatic vegetation (Zeiner et al. 1990; Stebbins 2003). Preferred habitats for western pond turtles are permanent ponds, lakes, low-flow regions of rivers, and river side-channels and backwater areas.

Habitat quality appears to be correlated with the abundance of aerial and aquatic basking sites; western pond turtles often reach higher densities where many aerial and aquatic basking sites are available. Deep, still water with abundant emergent woody debris, overhanging vegetation and rock outcrops is optimal for basking and thermoregulation. Western pond turtles are uncommon in high-gradient streams probably because water temperatures, current velocity, lack of food resources, or any combination of these factors may limit their distribution (Holland 1991). Turtles will move significant distances (at least 1.8 miles) if the local aquatic habitat changes (i.e., disappears) (Jennings and Hayes 1994). Although adults are habitat generalists, hatchlings and juveniles require very specialized habitat for survival through the first few years. Hatchlings require shallow water habitat with relatively dense submergent or short emergent vegetation in which to forage. Habitats preferred by hatchlings and juveniles are often relatively scarce and subject to disturbance (Jennings and Hayes 1994).

Southwestern pond turtles require upland oviposition sites in the vicinity of aquatic habitats. Nests are typically dug in a substrate with high clay or silt content, but may vary from sandy shorelines to forest soil types. Nests have been observed in many soil types from sandy to very hard. Quality nesting habitat consists of short, grassy or weedy areas in hard, compacted, clay soil on south or southwest-facing slopes. Slope of nest sites range up to 60°, but most nests are on slopes less than 25 degrees. Females seem to prefer sites situated on well drained clay/silt soils for nesting, with a slope of less than 15 degrees that are dominated by grasses and herbaceous vegetation, but lack shrubs and trees (Spinks et al 2003). Nesting sites have been recorded as far as 400 meters from aquatic areas, but most are located within 200 meters of the aquatic site (Storer 1930; Jennings and Hayes 1994).

Areas near water sources provide suitable overwintering habitat for this species, excluding those seasonal streams and wetlands found in cropland, orchard, vineyard, and all developed land cover types. Females emerge from hibernation sites and travel overland to riparian or other aquatic sites in the spring for mating. Breeding activity peaks in June–July when females begin to search for suitable nesting sites up to 325 feet (100 m) away from watercourses (Nussbaum et al. 1983). Hatchlings emerge the following spring after overwintering in the nest. Actual incubation takes 73–80 days (Feldman 1982).

Eight acres of riparian habitat, 10 acres of riverine habitat, and 12 acres of basin/stock pond habitat occur in the HCP Permit Area; however, only some basin/stock ponds provide potentially suitable permanent water sources. The HCP Permit Area crosses the St. John’s River and Cottonwood Creek; however these two streams and many of the irrigation ditches lack vegetation and are considered temporary water sources. As a result, there is low potential for this species to occur within the HCP Permit Area.

Documented records includes two occurrences within 7 miles of the HCP Permit Area, including an undated occurrence approximately 6 miles southeast of the eastern terminus of the HCP Permit Area, and one approximately 2 miles west of the HCP Permit Area, in the City of Visalia (dated 1869) (CDFW 2013). No focused surveys were conducted for this species and none were observed during other biological surveys.

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

No Action Alternative

Under the No Action Alternative (new urban growth and development within the study area would continue to occur as prescribed by local regulations and planning documents. East of the Friant-Kern Canal, areas currently supporting natural land covers (including annual grassland and aquatic habitat) are within the Foothill Growth Management Plan and Rural Valley Lands Plan zoned for agriculture and mixed use (County of Tulare 2012). West of the Friant-Kern Canal, the study area is zoned for agricultural uses similar to existing uses. There is a possibility that future development projects may result in loss of riparian, riverine, and basin/stock pond habitats, and/or indirect effects to riparian, riverine, and basin/stock pond habitats and to southwestern pond turtles.

Development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia, and would be required to prepare CEQA documentation as projects with discretionary actions are proposed. Projects would be individually required to mitigate any potentially significant effects to special-status species, including southwestern pond turtle.

Determination

Under the No Action Alternative, foreseeably future development could result in direct and indirect effects to riparian, riverine, and basin/stock pond habitats and to western pond turtles. With implementation of avoidance, minimization, and mitigation measures that would be prescribed pursuant to CEQA, the No Action Alternative would not result in significant adverse effects to southwestern pond turtle.

Proposed Action Alternative

Southwestern pond turtles were not observed within the HCP Permit Area and the nearest documented occurrence is located two miles west of the HCP Permit Area. Construction Covered Activities would result in permanent direct effects to potential southwestern pond turtle habitat due to clearing and grubbing and grading activities related to construction of access roads and pads, footings and foundations for the transmission line. This permanent direct effect involves the removal of 0.17 acre of ditch habitat, which provides potential aquatic habitat for this species; and 40.96 acres of annual grassland which provides potentially suitable upland nesting habitat for western pond turtles. However, since many of the irrigation ditches lack vegetation and are considered temporary water sources, it is unlikely that southwestern pond turtles would utilize these habitats except as temporary habitat during the spring. Construction Activities would also result in temporary direct effects to potential southwestern pond turtle habitat within work areas that would not be graded but may require equipment access or placement of structures. A total of 0.24 acre of ditch habitat and 34.8 acres of potentially suitable upland breeding and aestivation habitat would be temporarily affected by work areas.

Construction Covered Activities could also result in indirect effects to southwestern pond turtles, ditch habitat, and annual grassland habitat (breeding and aestivation). These indirect effects include impacts to water quality which could occur during the construction phase as a result of the release of pollutants such as fuels, lubricants, and solvents; or from increased erosion and sediment deposition. Vehicles and construction equipment may increase the spread of invasive nonnative plants by transporting seed from one site to another. Grading within grassland habitat can result in impacts to western pond turtle nest and aestivation sites. Creation and improvement of access roads would result in impacts to annual grassland and potentially pond turtle nest and aestivation sites. Increased use of the area could further contribute to adverse indirect effects to

western pond turtles and potential habitat by providing additional mechanisms for release of pollutants and invasive species; noise, increased soil disturbance, and increased trash.

The Proposed Action does not include conservation strategies for southwestern pond turtle; however, conservation strategies developed for covered species would also benefit southwestern pond turtle. Direct effects would be minimized through implementation of AMMs during Covered Activities (PD-1 through PD-3), conducting environmental awareness training (C-1) and establishing environmentally sensitive areas (C-3). Additionally, conducting pre-activity clearance surveys to ensure that southwestern pond turtles are not present would minimize the potential for impact during construction Covered Activities. Indirect effects would be minimized through implementing a noxious weed and invasive plant control plan (C-6), restricting equipment fueling and maintenance to areas away from waterways (C-8), and constructing locking gates on access roads to reduce public access (C-11).

Operations and Maintenance Covered Activities

Class I O&M activities would be conducted entirely within the drivable surface of access roads, TSP/LST pads, or from aircraft, and would not disturb plants or the soil surface in natural vegetation; therefore, there would be no direct effects from Class I O&M activities to southwestern pond turtles or their aquatic or upland habitat. Indirect effects from Class I O&M activities would include noise and other disturbances associated with increased presence of personnel and equipment.

Class II O&M activities are conducted in part in natural vegetation outside of pads and roads, and would disturb vegetation and soil in those areas. Class II O&M activities would result in temporary direct effects to 0.08 acre of ditch habitat and 17.6 acres of annual grassland habitat. Indirect effects to western pond turtle habitat and/or western pond turtles for Class II O&M activities would be similar to indirect effects from construction Covered Activities and include potential for water degradation, increased spread of noxious weeds and invasive species, and increased trash which could attract predators.

There is no conservation strategy for southwestern pond turtles to minimize adverse effects from O&M activities. Direct and indirect effects would be minimized through implementation of an O&M Environmental Compliance Plan (O&M-1), mapping of environmentally sensitive areas (O&M-3), and conducting pre-activity surveys and monitoring (O&M-5). Indirect effects would be further minimized by limiting equipment fueling and maintenance near waterways (O&M-9), controlling erosion near waterways (O&M-10), and implementing a noxious weed and invasive plant control plan (O&M-14).

Determination

There are 12 acres of basin/stock ponds within the HCP Permit Area and those features with perennial water constitute the only aquatic features that are likely to support southwestern pond turtles. Ditches that contain vegetation may also provide temporary habitat (primarily during the spring) for pond turtles; however, none of these features provide perennial water. The Proposed Action would result in permanent direct and indirect effects to ditch habitat and to annual grassland nesting and aestivation habitat. However, there is very low likelihood of southwestern pond turtles utilizing seasonal ditches or any other seasonal habitats within the HCP Permit Area and the effects from the proposed action would be relatively small in size and of short duration. In addition, with implementation of above-mentioned O&M measures and the conservation strategy in the HCP, implementation of the proposed action is not expected to have a significant adverse effect on this species.

8.4.4 California Condor (FE/SE)

Affected Environment

Historically, the California condor (*Gymnogyps californianus*) (condor) ranged along the Pacific coast from British Columbia south through Baja California, Mexico. By 1940, the range had been reduced to the coastal mountains of southern California with nesting occurring primarily in the rugged, chaparral-covered mountains, and foraging in the foothills and grasslands of the San Joaquin Valley. This area extends from Santa Clara and San Benito counties south through the Coast Ranges to Ventura and northern Los Angeles counties, in the foothills around the southern end of the San Joaquin Valley, and north through the Tehachapi Mountains and the foothills of the Sierra Nevada to Tulare and Fresno counties (Koford 1953; Wilbur 1978; Meretsky and Snyder 1992). The last individual in the historical condor population was removed from the wild in 1987 for captive breeding purposes, and the release of captive produced young began in January 1992 (Kiff 2000). Release sites have been located on the coastal mountains of Ventura, Santa Barbara, San Luis Obispo, Monterey, and San Benito Counties (Grantham 2007). As of April 20, 2013, the wild population in central and southern California included 138 birds (Service 2013).

California condors require large areas of remote country for foraging, roosting, and nesting. Condors reach sexual maturity when they are 5–7 years of age. Nests are generally placed in shallow caves and rock crevices on cliffs and, more rarely, in cavities in giant sequoia trees (*Sequoiadendron giganteum*) and redwood trees (*Sequoia sempervirens*), where there is minimal disturbance (Snyder and Schmitt 2002). Foraging habitat typically includes foothill grasslands and oak savannah habitats that provide ready access to carcasses of dead animals, primarily medium- to large-sized mammals such as deer and cattle. Typical foraging behavior includes long-distance reconnaissance flights, lengthy circling flights over a carcass, and hours of waiting at a roost or on the ground near a carcass

(Snyder and Snyder 2000). California condors may fly 150 miles a day in search of food. Condors typically roost on large trees or snags, or on isolated rocky outcrops and cliffs.

Historical condor use in Tulare County consisted of roosting, foraging, and nesting in the foothills and lower elevations of the nearby Sierra Nevada. Prior to the 1980s, condors regularly foraged in the foothills as far north as the Lake Kaweah region (Service 1984) (Figure 1-1), which was used by foraging condors primarily during the summer months (Koford 1953; Miller et al. 1965; Wilbur 1987; Meretsky and Snyder 1992). The flat agricultural-dominated areas of the San Joaquin Valley likely provided little foraging opportunities for condors or needed thermal lift for soaring. However, condors are very opportunistic and will go where there are medium to large dead animals, access to these animals, and adequate lift; therefore, some foraging may have occurred over the Valley historically when these conditions were met.

With the increase in agricultural use of available land, opportunities for large animal carcasses in the Valley have likely decreased. However, the HCP Permit Area overlaps both the agricultural-dominated lands in the flat portions of the Valley and the adjacent foothills to the east where more grassland, and thus cattle and other ungulates, occur. The easternmost extent of the HCP Permit Area actually extends into the foothills.

SCE did not conduct focused surveys for this species to prepare the CPUC CEQA document (CPUC 2009, 2010) or to prepare the proposed HCP. However, recent but infrequent use of the HCP Permit Area region by condors has been tracked via GPS transmitters attached to individual condors (Quad Knopf 2013). Specifically, in 2011, three condors that were bred in captivity and released were recorded soaring and roosting within 25 miles of the Permit Area (Quad Knopf 2013). On May 1, 2013, one of these individuals was recorded roosting approximately 1.4 miles north of the Permit Area; on May 2, it roosted approximately 22 miles north and on May 3 it roosted approximately 14 miles southeast of the HCP Permit Area. Two other condors were recorded on May 30, 2011, approximately 14 miles southeast of the Permit Area (Figure 8-21). All of these recordings were within foothill landscapes (Quad Knopf 2013).

Within the HCP Permit Area, there are 964 acres of potentially suitable grassland foraging habitat located in the 8 miles of the proposed HCP Permit Area located east of the Friant-Kern Canal. Virtually all annual grassland in the proposed HCP Permit Area is seasonally grazed by cattle and other domestic livestock, although grazing frequencies and intensities vary through the area. In Tulare County, approximately 616,000 acres of grassland and savannah habitat currently exists that is suitable foraging habitat for condors (California GAP Database 2008).

There are no condor nesting records in the San Joaquin Valley proper (west of the Friant-Kern Canal) and only two known occurrences of condors nesting east of the San Joaquin Valley. Both of these nests were located in cavities of giant redwood trees in Tulare County, approximately

30–35 miles east of the Permit Area. Currently there are no known active condor nests in the Sierra Nevada or foothills. And no suitable California condor nesting habitat occurs within or in the vicinity of the proposed HCP Permit Area (Quad Knopf 2013).

Environmental Consequences

Methodology for Impact Analysis

For each alternative considered in this EA, the Service will analyze the context and evaluate the intensity of the alternative's effects (impacts) on condors. Several contexts, including the rarity of condors, the region of the species' range affected, the affected interests, the setting, and the locality will be considered, as well as the intensity and severity of the alternative's impacts on condors; the degree to which the alternative may adversely affect individuals or habitat of condors; and the short-term and long-term effects of the alternative on condors.

Identifying the Threshold of Significance

For the purposes of this EA, an alternative would have a significant effect on condors if it would result in the take, harm, or harassment of one individual condor..

No Action Alternative

Under the No Action Alternative (i.e., the future condition without the proposed HCP and permit), the Cross Valley Transmission Line would not be constructed. However, new urban growth and development within the resource study area would continue to occur as prescribed by local regulations and local planning documents (City of Visalia 1996; County of Tulare 2012). East of the Friant–Kern Canal, areas currently supporting natural land covers (including annual grassland and aquatic habitat) are within the Foothill Growth Management Plan and Rural Valley Lands Plan zoned for agriculture and mixed use (County of Tulare 2012). West of the Friant–Kern Canal, the study area is zoned for agricultural uses. There is a possibility that future development projects east of the Friant–Kern Canal may result in direct loss of annual grassland and, therefore, direct loss of suitable condor foraging habitat and/or indirect impacts to suitable condor foraging habitat of the California condor. However, the amount of grassland east of the Friant–Kern Canal that could be developed under the future No Action condition is not identified in the general plan (County of Tulare 2012).

Future development projects east of the Friant–Kern Canal would need to comply with local policies and regulations within Tulare County and would be required to prepare CEQA documentation as projects with discretionary actions of the County are proposed. Development projects analyzed under CEQA would be individually required to mitigate any potentially significant effects to California condor. Additionally, the project proponent might apply for a

permit from the Service, pursuant to the requirements of the federal ESA, as well as CDFW pursuant to CESA, to authorize any incidental take of California condor resulting from construction, operation, and/or maintenance of the proposed construction and O&M Covered Activities. However, future conversion of existing grassland landcover to a different agricultural landcover type (e.g., orchard, row crop, or vineyard) can be expected to occur under the future No Action condition. Conversion of existing grassland to other agricultural uses or to rural residential use would not require approval by a City or the County, and no CEQA analysis would occur.

Under this alternative, the Service expects that captive-bred condors will continue to be released from hacking locations at Bitter Creek National Wildlife Refuge and Hopper National Wildlife Refuge, and that individuals will continue to disperse into historical foraging and roosting areas, including within Tulare County as was demonstrated by the occurrences of several individuals to the north and east of the HCP Permit Area in 2011 (discussed earlier under Affected Environment). Consequently, while it is unknown at this time how many condors will occur within or adjacent to the proposed HCP Permit Area over the course of the 30-year permit term, the Service expects that condors will, on occasion, occur within and adjacent to the proposed HCP Permit Area, assuming existing habitat conditions, particularly grassland areas that support cattle, persist.

Determination

Under the No Action Alternative, foreseeable future development projects and the conversion of grassland to other uses would result in direct and indirect effects to suitable foraging habitat of the California condor.

Proposed Action

Direct and Indirect Effects

Construction Covered Activities

Under the Proposed Action, construction Covered Activities would result in the permanent loss of approximately 32 total acres of annual grassland habitat that are suitable foraging habitat for the California condor. Covered activities would result in temporary direct effects to approximately 47 total acres of annual grassland, which will be revegetated with annual grasses after the construction Covered Activities are completed in 2014. Permanent direct effects to suitable foraging habitat would occur within the permanent footprints of the proposed structures, the structure pads, the crane pads, and within the access road footprints (road surface, road shoulders, and any cut or fill slopes). Temporary direct and indirect effects would occur within temporary work areas that would not be graded or compacted. Under proposed Covered

Activities 2.2.2.6, 2.2.4.5, and O&M-12 the applicant proposes to revegetate the 47 acres of temporarily disturbed area with annual grasses.

Microtrash, small bits of plastic and metal such as bottle caps, pop-tops, glass, and PVC pipe fragments that is inadvertently fed to hatchlings by their parents, can cause injury or mortality to condor chicks and is an important factor affecting condor breeding success (Grantham 2007; Mee et al. 2007). Condors are very curious animals and are often drawn to human activity areas in rural settings during foraging events, particularly if cattle or other mammal carcasses are nearby. If microtrash is present in such areas, including construction sites, condors could potentially pick at and/or ingest it. While the overall level of human activity within the HCP Permit Area is expected to be relatively low, it is assumed that some level of microtrash will occur in an area where none (or very little) likely occurred before. Therefore, it is reasonable to assume that condors foraging or otherwise attracted to the HCP Permit Area due to increased human activity and/or carcasses in the area could potentially ingest microtrash. Because of the current low level of condor use within the HCP Permit Area region, the potential for such incidents to occur is expected to be quite low; however, if, as the Service expects, condors continue to be released into the wild over the 30-year permit period and continue to distribute into historical foraging and roosting areas, including within the foothill regions of Tulare County, the Service expects that there will be some potential for microtrash ingestion to occur during the construction period. Ingestion of microtrash produced by construction Covered Activities would be considered a form of “harm” to California condors and, therefore, “take” pursuant to the federal ESA.

However, the applicant proposes to implement AMM C-10 which would dispose all food-related trash and microtrash (e.g., nuts, bolts, and wires) in closed containers that would be removed daily from the HCP Permit Area. The daily cleanup and removal of microtrash and food-related trash would substantially reduce the attractiveness of construction sites within the HCP Permit Area to condors foraging or perching nearby. In addition, AMM C-1 provides for an environmental awareness program to be presented to all SCE workers and contract workers regarding biological resources within the HCP Permit Area, laws and regulations that protect these resources, and environmental responsibilities of each worker. While not explicit in AMM C-1, if this training will include a discussion of California condors, their potential to occur, the types of microtrash that could be ingested by condors, and measures to avoid microtrash buildup on construction sites, then, together with AMM C-10, the Service can assume that the potential for microtrash to result in the take of California condors will be mitigated such that no take is expected to occur as a result of the construction Covered Activities.

Increased human use of the HCP Permit Area as a result of construction activities can also increase the potential of intentional or inadvertent disturbance (e.g., flushing, encroaching upon) to condors feeding on nearby carcasses or otherwise perched near the construction area. As noted

above, condors are very curious animals and would generally not shy away from a carcass that is adjacent to or within the HCP Permit Area, or otherwise perch near or within the HCP Permit Area during the construction period. While the present level of use of the HCP Permit Area region by condors is low, and is expected to remain so during the construction period, because condors have been documented foraging within 1.4 miles of the HCP Permit Area, and as opportunistic scavengers, the potential for condors to occur close to or within the HCP Permit Area during construction, particularly if a carcass were to be present, cannot be discounted. Consequently, the Service assumes that there is some potential for disturbance to perching or feeding condors to occur. Inadvertent or intentional disturbance to California condors would be considered a form of “harassment” and therefore, “take” pursuant to the federal ESA.

As part of the environmental awareness program to be presented to all SCE workers and contract workers regarding biological resources within the HCP Permit Area under AMM C-1, if such training will include a discussion of the types of actions and behavior that could result in disturbance of California condors that are feeding on carcasses nearby or otherwise perching or roosting adjacent to or within the HCP Permit Area and that, therefore, would be prohibited, the Service can assume that such training can be expected to substantially minimize the potential for construction workers and/or SCE personnel to disturb condors. In addition, the applicant proposes to implement AMM C-11 which would install gates at strategic locations along access roads in consultation with land owners. These gates would be locked to discourage public access to suitable condor foraging habitat via the proposed access roads. With implementation of AMM C-1 as noted, together with AMM C-11, the Service expects that the potential for human disturbance to result in take of California condors will be mitigated such that no take associated with “harassment” is expected to occur from Covered Construction Activities.

Operations and Maintenance Covered Activities

While it is unknown to what degree California condors would potentially use the HCP Permit Area in future years for foraging, because areas just east and southeast of the HCP Permit Area was historically used by condors (designated critical habitat—Unit #9, Tulare County Rangelands, and Unit #6, Blue Ridge Condor Area) for the condor occurs approximately 5 miles to the southeast of the HCP Permit Area), the Service expects that as the release of captive-bred condors increases over the 30-year term of the permit, these birds will increasingly use the foothill and adjacent valley areas of Tulare County, including the HCP Permit Area region, for foraging and roosting. It is also reasonable to assume that ongoing O&M activities, as well as ongoing human use of access roads once the Cross Valley Transmission Line is completed, will result in the potential increase of microtrash within the HCP Permit Area over the life of the permit. Consequently, the potential for microtrash ingestion by condors within the HCP Permit Area due to O&M-related activities, is reasonably foreseeable. As noted above, ingestion of

microtrash produced by O&M Activities would be considered a form of “harm” to California condors and, therefore, “take” pursuant to the federal ESA.

Similar to Covered Construction Activities and pursuant to O&M-2, the applicant will provide for an environmental awareness program to be presented to all SCE workers and contract workers performing O&M Covered Activities regarding biological resources within the HCP Permit Area, laws and regulations that protect these resources, and environmental responsibilities of each worker. While not explicit in AMM O&M-2, if such training will include a discussion of California condors, their potential to occur, the types of microtrash that could be ingested by condors, and measures to take to avoid microtrash buildup on construction sites, then the Service can assume that such training will substantially minimize the potential for microtrash buildup. In addition, the applicant will implement AMM O&M-13 which would require the disposal of all food-related trash and microtrash (e.g., nuts, bolts, and wires) in closed containers that would be removed daily from the HCP Permit Area. Furthermore, the applicant proposes to implement AMM C-11 which would install gates at strategic locations along access roads in consultation with land owners. These gates would be locked to discourage public access to suitable condor foraging habitat via the proposed access roads. Implementing of these measures will substantially minimize the potential for microtrash buildup as a result of O&M Covered Activities such that no take of California condors associated with ingestion of microtrash is expected to occur as a result of O&M Covered Activities over the 30-year permit term.

Similarly, as the condor population continues to increase and expand into Tulare County, it is reasonable to expect that, over the 30-year life of the permit, the potential for intentional or inadvertent disturbance (e.g., flushing, encroaching upon) of condors feeding on nearby carcasses or otherwise perched near or within the HCP Permit Area could occur as a result of O&M activities and/or use of access roads. Such disturbance could annoy or harass a condor to an extent as to significantly disrupt normal behavioral patterns. As noted above, the inadvertent or intentional disturbance to California condors is considered a form of “harassment” and therefore, would constitute “take” pursuant to the federal ESA.

As part of the environmental awareness program to be presented to all SCE workers and contract workers regarding biological resources within the HCP Permit Area under AMM O&M-22, if such training will include a discussion of the types of actions and human behavior that could result in disturbance of California condors that are feeding on carcasses nearby or otherwise perching or roosting adjacent to or within the HCP Permit Area and that, therefore, would be prohibited, the Service can assume that such training can be expected to substantially minimize the potential for construction workers and/or SCE personnel to disturb condors. In addition, implementation of AMM C-11 would require the installation of locked gates at strategic locations along access roads to discourage public access to suitable condor foraging habitat. With implementation of AMM O&M-2, as noted above, together with AMM C-11, the Service can

assume that the potential for human disturbance to result in take of California condors will be mitigated such that no take associated with “harassment” is expected to occur from O&M Covered Activities over the life of the permit..

The potential indirect effect of the proposed construction Covered Activities and the potential direct effect of the proposed O&M activities on California condors is the potential for collision with, and/or electrocution by, the completed transmission line of individual California condors. Electrocutions with high-voltage transmission lines have not been documented to date. With respect to the Cross Valley Transmission Line, the Service expects that the 18-foot vertical separation between conductors, and the 14-foot horizontal separation between the main tower pole and conductors, that is inherent in both proposed transmission tower designs (i.e., the tubular steel pole and lattice steel tower), and the fact that the conductors for both designs will hang below the tower cross-arms, will be effective in preventing electrocution of condors (with a maximum 9–10 foot wingspan) that may attempt to perch on a tower cross-arm or on the top of the main tower pole.

In addition, most captive-bred condors have been and continue to be subjected to aversive conditioning prior to their release; birds scheduled for release are housed in pens in which artificial power poles are installed and which give birds a mild electric shock (Wallace 1994, 2000). The Service believes that such training has contributed to the substantial reduction in the incidence of captive-bred condors perching on power poles. However, wild-born condors that have not been subjected to such training could potentially attempt to perch on transmission pole cross-arms, or the top of transmission poles, of the Cross Valley Transmission Line over the 30-year permit term. The Service expects that as more condors are bred in the wild, the number of condors not having received this training will increase within the HCP Permit Area region over the 30-year permit term as condors continue to expand into historical foraging and roosting areas, including within and near the proposed HCP Permit Area. As discussed above, though, because of the substantial horizontal and vertical separation between conductive components associated with the proposed transmission tower designs, condors perching on transmission tower cross-arms or pole tops, attempting to perch in these locations, or flying from these locations after perching will not be exposed to an electrocution risk. While perching on transmission poles in general is not a behavior conducive to condor survival (poles and cross-arms associated with smaller distribution lines, or older design transmission poles, may not have the separation necessary to avoid electrocution risk), the separation between conductors and potential perching spots (cross-arms and pole tops) associated with the Cross Valley Transmission Line is substantially larger than the wingspan of a California condor. Therefore, the Service expects that no harm or other forms of take will occur to condors, including wild-bred individuals, occurring in the HCP Permit Area region over the 30-year permit term.

While collisions with power lines were not documented in the pre-release era (i.e., prior to 1992), at least seven individuals were killed by collisions with lines between 1992 and 1999 (Meretsky et al. 2000), and such collisions remain a threat to released condors (Snyder and Snyder 2000, 2005; Snyder 2007). It is notable, though, that these collisions occurred in association with smaller distribution lines and primarily along the central coast of California; none involved collisions with high-voltage transmission lines. On Tejon Ranch, two 230 kV transmission lines extend across the upland portions of the western portion of the ranch in a north–south direction; a 66 kV transmission line extends across the southwestern portion of this area. As both adult and captive-bred condors continue to be released from sites north of the ranch, condors have increasingly been documented foraging on the ranch, often in large numbers. Since the condor release program began in the early 1990s, individuals have been regularly flying over and near these lines (which have been on the ranch for decades and do not contain bird diverters) while foraging on the ranch. To date (approximately 20 years since condors have begun to be released in this region), there have been no occurrences of condors colliding with these transmission lines or transmission towers.

As the number of captive-bred condors released into the wild increases, the Service and species experts expect the number of condors moving into historical areas of their California range, including within and near the Permit Area over the 30-year term of the HCP, to also increase. While it is unknown at this time how many and to what extent condors will occur within and/or adjacent to the proposed HCP Permit Area over the 30-year term of the HCP permit, the Service expects that because of the expected increase in condor activity in the foothill regions of Tulare County, it is possible that a condor could potentially collide with one of the transmission lines proposed within the HCP Permit Area, resulting in injury or death of that condor. Any such collisions would be considered a form of “harm” and, therefore, “take” pursuant to the federal ESA. However, the applicant has proposed to place line marking devices, i.e., “bird flight diverters,” along the easternmost 3.25 miles of the optical ground wire (OPGW) (between structures 90-104), where the line intersects with rangelands. These rangelands along the eastern most portion of the line are more characteristic of condor foraging areas, which have been characterized as open foothill grasslands and oak savanna foothills that support populations of deer, elk, and cattle (Service 2013). The other portions of the line are primarily over existing agricultural lands on the valley floor (i.e., relatively flat landscapes).

Determination

Because of the substantial amount of available grassland and savannah foraging habitat presently occurring, and expected to continue to occur over the 30-year permit term, along the Sierra foothill region within Tulare County, the Service does not expect that the permanent loss of approximately 32 acres of suitable grassland foraging habitat, and the temporary loss of 47 acres of suitable grassland foraging habitat, as a result of Covered Construction Activities, to adversely affect existing or future condor foraging behavior or populations currently in the region.

With implementation of AMM C-10 and AMM O&M-13, which would dispose of all food-related trash and microtrash from the HCP Permit Area; AMM C-1 and O&M-2, as

provisioned above, which provide for an environmental awareness program to be presented to all SCE workers and contract workers regarding biological resources within the HCP Permit Area and worker responsibilities associated with these resources; and AMM C-11, which would require the installation of locked gates at strategic locations along access roads to discourage public access to suitable condor foraging habitat, the Service believes that the potential for microtrash buildup to occur as a result of Covered Construction and O&M Activities will be substantially reduced such that take of California condors as a result of microtrash ingestion is not expected to occur.

With implementation of AMM C-1, as provisioned above, which provides for an environmental awareness program to be presented to all SCE workers and contract workers regarding biological resources within the HCP Permit Area and worker responsibilities associated with these resources; and AMM C-11, which would require the installation of locked gates at strategic locations along access roads to discourage public access to suitable condor foraging habitat, the Service believes that the potential for intentional or inadvertent disturbance of condors as a result of covered construction and O&M activities will be substantially reduced such that take of California condors, in the form of harassment, is not expected to occur.

Because of the power pole aversive conditioning that captive-bred condors are subjected to prior to their release, and because of the adequate horizontal and vertical separation between conductors on both the tubular- and lattice-styled proposed tower designs, the Service believes that the proposed transmission towers and lines will not pose an electrocution risk to condors; consequently, no take of California condors as a result of electrocution will occur. In addition, the applicant has proposed to place bird flight diverters on the OPGW along the easternmost 3.25 miles of the proposed alignment.

Over the proposed 30-year permit term, condor use in the vicinity may increase, specifically in grasslands beyond the area of the line where the bird flight diverters are to be installed. This may result in an increased potential for condor collisions within other locations where the proposed alignment crosses suitable grassland foraging habitat over the life of the 30-year permit. However, the proposed HCP identifies as a “Changed Circumstance” that if condor use within the vicinity of the proposed Cross Valley Line increases over the 30-year permit term, the applicant, in conjunction with the Service, would evaluate what, if any, additional avoidance measures are necessary to avoid take of condors; these may include, but would not be limited to, installation of additional bird deflectors (i.e., along additional sections of the line) or installation of a different type of bird deflector. Alternatively, if the Service issued a Section 10(a)(1)(B) permit, and condor use in the vicinity increases such that the likelihood of take of condors increases, SCE can propose an amendment to their 10(a)(1)(B) permit to include condors as a covered species.

Cumulative Effects

The geographic scope for California condor cumulative effects analysis consists of suitable foraging habitat within the cumulative projects area. The Proposed Action would not affect condor nest sites or breeding habitat; therefore, the Proposed Action would not contribute to cumulative adverse effects to condor breeding habitat. The primary affects to condors from the Proposed Action and reasonably foreseeable future projects would be increase of microtrash and collision with transmission lines. Because condors are federally and state listed, all foreseeable future projects would be required to address potential direct and indirect effects to condor and implement avoidance and minimization measures. Installation of diverters to minimize potential for collision and environmental awareness training regarding microtrash are standard practices and can be expected to be incorporated into future foreseeable projects. The proposed action would implement measures to minimize potential effects to condors; therefore, the contribution of the proposed action to the cumulative effect is negligible. The proposed action's contribution to the cumulative adverse effect on condors would not be cumulatively considerable.

8.4.5 Bald Eagle (BCC/SE/FP)

Affected Environment

The bald eagle (*Haliaeetus leucocephalus*) was delisted from the Federal List of Endangered and Threatened Wildlife and Plants in 2007. It is protected under the Bald and Golden Eagle Protection Act and is designated by the Service as a bird of conservation concern. It is still state listed endangered and is also state fully protected. The bald eagle is a North American species with a historic range from Alaska and Canada to northern Mexico. Bald eagles live near rivers, lakes, and marshes where they can find fish, their staple food. The species will also feed on waterfowl, snakes, turtles, muskrats, rabbits, frogs, mice and other small animals, as well as carrion. Because of this opportunistic behavior, bald eagles are not bound to nest near a water source (though most do). For example, in recent years bald eagles have begun to nest near livestock operations, a long distance from any significant water source, where livestock waste provides a ready food supply. Bald eagles require a good food base, perching areas, and nesting sites. Their habitat includes estuaries, large lakes, reservoirs, rivers, marshes, bays, and some seacoasts. In winter, the birds congregate near open water in tall trees for spotting prey and night roosts for sheltering.

Eagles mate for life (Buehler 2000), choosing the upper portions of large trees in which to build nests. Bald eagles usually like to have a clear view in all directions around their nests and so tend to prefer nest sites that are on the tree canopy edge. Bald eagles generally use and enlarge the same nest each year. Nests may reach 10 feet across and weigh from a half ton to two tons; however, typical nests are much smaller, more like five or six feet across and three or four feet high.

The breeding period varies with latitude and altitude. In the Pacific region, nest building occurs from January through March, egg laying and incubation from February through May, hatching and rearing young from March through July, and fledging young from June to August. Sometimes a territory includes multiple suitable nest sites and a pair may build more than one nest within a territory. Along with one or more appropriate nest sites, a bald eagle territory typically includes daytime perch sites that are regularly used for resting, for monitoring their territories for threats, and for hunting. An average territory is about 1 mile in diameter, though in areas where food is more difficult to find territories may be larger and in areas where food is especially abundant, such as along major rivers, territories may be much smaller.

Aerial nest surveys were conducted in 2011 by Bloom Biological, Inc., which confirmed the location of one active bald eagle nest approximately 4.4 miles from the proposed center line of the HCP Permit Area. Bald eagles could potentially forage within and adjacent to the HCP Permit Area in riverine (15 acres) and some basin/stock pond (19 acres) habitat; however, Lake Kaweah and the Kaweah River are also present approximately 4 miles southeast of the HCP Permit Area and it is likely that birds from this nest forage primarily at these two large perennial water sources where fish and other prey are abundant. As a result, there is low potential for bald eagles to forage within or immediately adjacent to the HCP Permit Area.

Environmental Consequences

Methodology for Impact Analysis

For each alternative considered in this EA, the Service will analyze the context and evaluate the intensity of the alternative's effects (impacts) on bald eagles. Several contexts, including the rarity of bald eagles, the region of the species' range affected, the affected interests, the setting, and the locality will be considered, as well as the intensity and severity of the alternative's impacts on bald eagles; the degree to which the alternative may adversely affect individuals or habitat of bald eagles; and the short-term and long-term effects of the alternative on bald eagles.

Identifying the Threshold of Significance

For the purposes of this EA, an alternative would have a significant effect on bald eagles if it would result in the take, harm, or harassment of one bald eagle.

No Action Alternative

Under the No Action Alternative new urban growth and development within the study area would continue to occur as prescribed by local regulations and planning documents. There is a possibility that future development projects may result in loss of riparian (and potentially nesting

habitat), riverine and basin/stock pond habitat and/or indirect effects to riparian, riverine and basin/stock pond habitat; however, since this species is not likely to forage within or adjacent to the HCP Permit Area, only potential nesting sites may be affected by future development.

Development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia, and would be required to prepare CEQA documentation as projects with discretionary actions are proposed. Projects would be individually required to mitigate any potentially significant effects to bald eagles. Additionally, the project proponent would need to apply for a permit from the Service, pursuant to the requirements of the Bald and Golden Eagle Protection Act if potential take of bald eagles would occur. At the state level, the species is listed as “Fully Protected”; no take permits for Fully Protected species can be issued by CDFW.

Determination

Under the No Action Alternative, foreseeable future development is not likely to result in direct or indirect effects to bald eagles or their foraging habitat, but could affect potential nest sites. With implementation of avoidance, minimization, and mitigation measures that would be prescribed pursuant to CEQA as well as conservation strategies associated with an incidental take permit from the Service, the No Action Alternative would not result in significant adverse effects.

Proposed Action Alternative

Direct and Indirect Effects

Construction Covered Activities

Under the Proposed Action, construction Covered Activities would not result in the permanent loss of riverine or basin/stock pond habitat that could potentially be used for foraging by bald eagle. The known bald eagle nest in the vicinity of the HCP Permit Area is quite distant and the nest is visually blocked from the HCP Permit Area by intervening terrain. In addition, and as noted above, the eagles associated with this nest are likely to spend most of their foraging and other movements in and around Lake Kaweah and the Kaweah River. Therefore, construction Covered Activities are not expected to have an adverse effect on the nesting pair of eagles. In addition, the Proposed Action includes conservation strategies for covered species which would reduce potential adverse effects from Covered Construction activities including avoidance of nesting birds (Nesting Birds-1) and restoration of temporary direct effects (Nesting Bird-2) through restoration of habitat.

Operations and Maintenance Covered Activities

O&M activities would not result in any direct effects to bald eagle foraging habitat. Indirect effects to bald eagle for Class II O&M activities would be similar to indirect effects from construction Covered Activities and include potential for avoidance of suitable riverine and basin/stock pond foraging habitat due to noise and dust and increased use of the area. Direct and indirect effects would be minimized through implementation of an O&M Environmental Compliance Plan (O&M-1), mapping of environmentally sensitive areas (O&M-3), conducting pre-activity surveys and monitoring (O&M-5) and staying on existing access roads (O&M-6). Indirect effects would be further minimized by revegetating temporarily disturbed areas (O&M-12).

The primary direct effect of O&M activities is the potential for collision and/or electrocution of individual golden eagles by the completed transmission line. Virtually all power line-associated eagle mortality is related to impacts with *distribution* lines and are most commonly a combination of collision and mid-span electrocution (Harness and Wilson 2001; APLIC 2012). With incorporation of Mitigation Measure 4.4-7 in the *Southern California Edison Cross Valley Line Golden Eagle Mitigation and Monitoring Plan* (SCE 2013, included as Appendix D to this EA), which provides for the applicant to follow the Avian Power Line Interaction Committee guidelines for raptor protection on power lines (including providing appropriate horizontal separation between energized conductors on transmission towers), the potential for electrocution of eagles perching on transmission towers is expected to be substantially minimized.

While collisions with transmission lines by juvenile and adult eagles is expected to be very minimal, young birds and migrants, in particular, are more susceptible to collisions with transmission lines than adults that have had the opportunity to learn the location of potential hazards within their home range. The use of line markers appears to be a successful means to substantially reduce the potential for collisions with transmission lines (De La Zerda and Rosselli 2003; Barrientos et al. 2011).

Mitigation measures for covered species include preconstruction surveys, buffer zones and an Operation and Maintenance Environmental Compliance Plan which will provide guidelines for resource protection during O&M Covered Activities (O&M-1); it will provide maps of sensitive resources and appropriate buffers to be implemented within the Permit Area. Furthermore, all O&M Covered Activities resulting in ground disturbance (i.e., Class II O&M Activities) are required to go through a SCE internal environmental screening process to determine avoidance and minimization requirements (O&M-4). This screening process includes a pre-activity survey (O&M-5). If suitable habitat is present, sensitive areas will be marked and avoided and the O&M activity will be monitored by a biologist (O&M-5).

Determination

One active bald eagle nest was observed approximately 4.4 miles southeast of the HCP Permit Area near Lake Kaweah. It is possible that bald eagles would forage in basin/stock pond and riverine habitat in the HCP Permit Area, though this is unlikely due to the fact that birds from this area are expected to forage primarily at the two large perennial water sources (Lake Kaweah and Kaweah River) where fish and other prey are abundant and nesting habitat is far superior.

Fifteen acres of riverine and 19 acres of basin stock/pond land cover types provide suitable foraging habitat for this species. Under the Proposed Action, construction Covered Activities would not result in the direct loss of any suitable foraging habitat available for bald eagle and would not occur near, or in line-of-sight with bald eagle nests in the area, although they could temporarily inhibit eagle use in the immediate HCP Permit Area. The Proposed Action includes avoidance and minimization measures to reduce potential adverse effects on eagles associated with electrocution and/or collisions with Cross Valley transmission lines. With implementation of these measures, the proposed alternative is not expected to have a significant adverse effect on this species.

Cumulative Effects

The geographic scope for bald eagle cumulative effects analysis consists of suitable breeding and foraging habitat within the cumulative projects area. The Proposed Action would not result in adverse effects to bald eagle breeding or foraging habitat; therefore, the proposed action would not contribute to cumulative adverse effects to bald eagle habitat. The primary affects to bald eagle from the proposed action and reasonably foreseeable future projects would be collision with transmission lines. Because bald eagles are protected by the Bald and Golden Eagle Protection Act, all foreseeable future projects would be required to address potential direct and indirect effects to condor and implement avoidance and minimization measures. Installation of diverters to minimize potential for collision is standard practice and can be expected to be incorporated into future foreseeable projects. Therefore, with implementation of minimization measures, effects would not be cumulatively considerable.

8.4.6 Golden Eagle (FP)

Affected Environment

Natural History

Golden eagles (*Aquila chrysaetos*) range from northern Alaska south to Baja California and northern Mexico and eastward to the Great Plains. They primarily occur in the western regions of North America and winter from southern Alaska and southern Canada southward through the

breeding range (Johnsgard 1990). This species is sparsely distributed throughout most of California, occupying primarily mountain, foothill, and desert habitats (Zeiner et al. 1990). The breeding population is supplemented by northern migrants in the winter months (Grinnell and Miller 1944). Golden eagles are mostly resident, but may move downslope for the winter or upslope after the breeding season. Eagle populations in California are comprised of both resident breeders, resident floaters (non-breeders, usually pre-adults), and wintering migrants. The species avoids settled areas and, therefore, has almost certainly declined in California within the past century due to loss of large, unfragmented habitat areas (Grinnell and Miller 1944). To date, limited population information exists on golden eagles in California; however, the population in North America appears to be in decline (Kochert and Steenhof 2002).

Golden eagles inhabit a variety of habitats including mountainous areas, forests, canyons, shrub lands, grasslands, and oak savannahs and oak woodlands (Knight et al. 1979; Fischer et al. 1984; Hayden 1984; Estep and Sculley 1989). However, hilly or mountainous country that provides updrafts that facilitate takeoff and soaring are occupied more than flat habitats (Johnsgard 1990). During spring and fall migration in the western United States and Canada, the golden eagle prefers wetlands, agricultural areas, and grassy foothills (Dekker 1985). Its winter range in the western United States includes open habitats with native vegetation; the species tends to avoid urban, agricultural, and heavily forested areas (Millsap 1981; Fischer et al. 1984; Craig et al. 1986; Marzluff et al. 1997).

Golden eagles breed from late January through August with peak breeding occurring in March through July. In central California, the golden eagle typically nests primarily in large trees within open grasslands and oak savannahs and, to a lesser degree, in oak woodlands and open shrublands (Hunt et al. 1995, 1999). This species will also nest on cliffs with canyons and escarpments, when available (Garrett and Dunn 1981; Johnsgard 1990). Approximately 85% of all nest areas overlook, or are on the opposite side of, the ridge from large valleys or areas of relatively low topographic heterogeneity and open vegetation (Scott 1985). It is common for the golden eagle to use alternate nest sites, and old nests are reused.

The main prey species for the golden eagle are medium to large mammals such as rabbits, hares, and squirrels; but eagles will also take other mammals, birds, and reptiles. Carrion (e.g., carcasses found on the landscape) is also a part of the eagle diet, especially during winter months (Olendorff 1976; Johnsgard 1990). The golden eagle is considered to be an opportunistic forager (Olendorff 1976). In Southern California, the prey of golden eagles is made up predominantly of the California ground squirrel and the Audubon cottontail (*Sylvilagus audubonii*) (Hoechlin 1976).

Sizes of eagle home ranges varied widely among individual eagles, but appear to be related to prey density and availability, and the openness of terrain (Zeiner et al. 1990). As examples, home range size has been estimated to average 8.92 square miles (5,709 acres) in Utah (Smith and

Murphy 1973) and 12.64 square miles (8,092 acres) in southwestern Idaho (Collopy and Edwards 1989). Territories remain occupied in years of low prey availability, even when golden eagles do not breed. Territorial boundaries are generally static, changing little from year to year (Marzluff et al. 1997).

In California, loss of golden eagle foraging and nesting habitat is largely due to the loss of grasslands to agriculture and urbanization. Additional threats to this species are human disturbance of nest areas leading to desertion of the nest in early incubation, urbanization, poaching, and electrocution from power lines (Remsen 1978; Thelander 1974). Other sources of direct golden eagle fatalities include wind turbine strikes and lead poisoning (Thelander 1974), as well as vehicle collisions (Phillips 1986).

Powerline Collision

Historically, eagles have suffered mortality from encounters with power poles and power lines through electrocution and/or collision trauma. Eagles are among the avian groups most prone to power line electrocution because of their large body size and behavior, which may include perching, roosting, and even nesting power poles (Bevanger 1998). More than 270 eagles were electrocuted in North America between 1986 and 1996 (Harness and Wilson 2001); immature eagles are most susceptible to electrocution when landing on power poles (Kochert et al. 2002). This is likely attributed to inexperience in flying and more frequent pole use by juveniles and subadults.

Virtually all power line-associated eagle mortality is related to impacts with *distribution* lines and are most commonly a combination of collision and mid-span electrocution (Harness and Wilson 2001; APLIC 2012). The greatest risk of collision with distribution lines were found in areas between active nests and frequent foraging areas, and where power lines crossed traditional flight corridors.

Distribution in Study Area

Golden eagles are not known to nest anywhere on the Central Valley floor, probably due to much of its early conversion to agriculture, residential, and commercial developments, and the concomitant loss of foraging and nesting habitat (Harlow and Bloom 1989; Bloom unpubl.; Thelander 1974). There are also no records of golden eagle in the CDFW's California Natural Diversity Database for the U.S. Geological Survey's 7.5-minute quadrangles that the Cross Valley Loop project is located in and all adjoining quadrangles (CDFW 2013). However, golden eagles commonly nest on the edge of the valley floor where natural oak-covered ranch lands meet dense agriculture. Based on an examination of topographical maps and aerial photos of the project area, Bloom Biological Incorporated (BBI) determined that approximately one third of the of the 4-mile golden eagle study area contained high quality nesting habitat for golden eagles (Bloom Biological Inc. 2011) (Figure 8-23). This high-quality habitat consisted of rolling oak

woodlands, along with some steep upper elevation hills with potential nest locations in the form of large valley oaks (*Quercus lobata*), blue oaks (*Q. douglasii*), western sycamores (*Platanus racemosa*), rock outcrops and utility towers. The remaining two-thirds of the golden eagle study area contained little habitat for golden eagle. These areas were generally dominated by agriculture land uses with a high human population density. The only potential nesting locations in these areas are in the form of high transmission power line towers.

In 2011 and again in 2013, BBI conducted protocol level surveys for golden eagles within four miles of the HCP Permit Area (Bloom Biological Inc. 2011, 2013). In 2012, Quad Knopf conducted general raptor surveys within the HCP Permit Area (Quad Knopf 2013). During the 2011 nesting surveys, active nests of four pairs of golden eagles were documented within the 4-mile eagle survey area. The four nests were identified within 0.5, 1.1, 1.19, and 2.1 miles from the center line of the Permit Area. A fifth active golden eagle nest was also recorded just outside the 4-mile survey area. All of the nests were observed east of the Friant–Kern Canal and fledged young in 2011. During the surveys conducted in 2013, eight golden eagle nests were identified within 4 miles of the proposed Cross Valley Line; all of the nests were found east of the Friant–Kern Canal mostly within oak trees, on cliffs, and one on a utility pole. Only two of these eight nests were active in 2013.

There are approximately 1,034 acres of suitable foraging habitat (annual grasslands) within the HCP Permit Area and 960 acres of suitable nest habitat.

Environmental Consequences

Methodology for Impact Analysis

For each alternative considered in this EA, the Service will analyze the context and evaluate the intensity of the alternative's effects (impacts) on golden eagles. Several contexts, including the rarity of golden eagles, the region of the species' range affected, the affected interests, the setting, and the locality will be considered, as well as the intensity and severity of the alternative's impacts on golden eagles; the degree to which the alternative may adversely affect individuals or habitat of golden eagles; and the short-term and long-term effects of the alternative on golden eagles.

Identifying the Threshold of Significance

For the purposes of this EA, an alternative would have a significant effect on golden eagles if it would result in the take, harm, or harassment of one golden eagle.

No Action Alternative

Under the No Action Alternative, future development projects may result in loss of annual grassland foraging and/or indirect effects to annual grasslands and golden eagles.

Development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia, and would be required to prepare CEQA documentation as projects with discretionary actions are proposed. Projects would be individually required to mitigate any potentially significant effects to golden eagles. Additionally, the project proponent would need to apply for a permit from the Service, pursuant to the requirements of the Bald and Golden Eagle Protection Act. At the state level, the species is listed as “Fully Protected;” no take permits for Fully Protected species can be issued by the CDFW.

Determination

Under the No Action Alternative, foreseeably future development could result in direct and indirect effects to annual grasslands and golden eagles. With implementation of avoidance, minimization, and mitigation measures that would be prescribed pursuant to CEQA as well as conservation strategies associated with an incidental take permit from the Service, the No Action Alternative would not result in significant adverse effects.

Proposed Action Alternative

Direct and Indirect Effects

Construction Covered Activities

Under the Proposed Action, construction Covered Activities would result in the permanent loss of approximately 32 acres of annual grassland habitat that could potentially be used for foraging by golden eagles. Covered Activities would result in temporary direct effects to approximately 47 acres of annual grassland, which would be revegetated after construction and initial grading.

Golden eagles are most susceptible to disturbance from human activities when they can view such activities from the nest site and immediate surrounding area. All of the five active golden eagle nests in the general vicinity of the HCP Permit Area are relatively distant and/or blocked by terrain from the HCP Permit Area. The closest nest, located 0.5 mile of the HCP Permit Area, is blocked by terrain from line-of-sight to any construction activities. Since the five known active nests within 4 miles of the HCP Permit Area have no line-of-sight between nest trees and potential construction areas associated with the transmission line, no disturbance due to construction activities that could result in nest failure is expected to occur to these nests. However, new active nests that may be established since the time of the last nest surveys and that are in close proximity (within 1 mile) to the HCP Permit Area may be susceptible to nest failure

as a result of construction activities if such activities are within the viewshed of the nest. While some studies recommend establishing spatial nest buffers from set distances (Richardson and Miller 1997; Suter and Jones 1981), because golden eagles are so visually oriented and are more sensitive with respect to human disturbances and other human activities than many other raptor species, a viewshed approach has been suggested as a more realistic application to buffering active nest sites since flushing distances (from nests, perches, roosts) of adult eagles can be reduced when the eagles are visually shielded (by vegetation and/or topographical features) from human activities (Camp et al. 1997).

During foraging flights, eagles are likely to avoid the immediate areas of high levels of human activity associated with project construction; however, their foraging ranges are large enough and there is adequate foraging habitat in the region to easily compensate for a temporary loss of foraging habitat adjacent to construction zones.

Operations and Maintenance Covered Activities

The presence of operations and maintenance personnel, and associated noise and activities, for both Class I and Class II O&M activities would increase the potential for disturbance to foraging eagles, but is not expected to adversely affect any currently nesting eagles due to such activities not being within the viewshed of known active nests. However, and as noted above for construction Covered Activities, new active nests that may be established since the time of the last nest surveys and that are in close proximity to the HCP Permit Area may be adversely affected by O&M activities if such activities are within a 0.5-mile viewshed of the nest.

The primary direct effect of O&M activities is the potential for collision and/or electrocution of individual golden eagles by the completed transmission line. As discussed above, virtually all power line-associated eagle mortality is related to impacts with *distribution* lines and are most commonly a combination of collision and midspan electrocution (Harness and Wilson 2001; APLIC 2012). While collisions with transmission lines by juvenile and adult eagles is expected to be very minimal, young birds and migrants, in particular, are more susceptible to collisions with transmission lines than adults that have had the opportunity to learn the location of potential hazards within their home range. The use of line markers appears to be a successful means to substantially reduce the potential for collisions with transmission lines (De La Zerda and Rosselli 2003; Barrientos et al. 2011).

Determination

Under the Proposed Action, because of the extensive amount of grassland in the region, the permanent loss of approximately 32 acres of annual grassland, and the temporary loss of 47 acres of annual grassland, is not expected to adversely affect eagle foraging behavior or populations currently in the region or expected in the future.

The applicant has proposed several measures to avoid and/or minimize disturbances to active eagle nests in the immediate vicinity of the Permit Area, including future active nests not currently known to exist, as a result of construction activities. These measures, included as Mitigation Measure 4.4-3 in the applicant's *Southern California Edison Cross Valley Line Golden Eagle Mitigation and Monitoring Plan* (Appendix D to this EA) include starting construction outside the eagle nesting period when feasible, establishing a minimum 500-foot buffer around active golden eagle nests if construction will occur during the nesting season, and monitoring active nests during construction activities. However, activities that occur within 0.25 mile of an active nest and within direct line-of-sight of that nest, have been known to cause adverse effects to nest success (Richardson and Miller 1997; Suter and Jones 1981). Therefore, a viewshed approach, as discussed above, is suggested to more adaptively manage potential adverse impacts to active golden eagle nests.

With incorporation of Mitigation Measure 4.4-7 in the *Southern California Edison Cross Valley Line Golden Eagle Mitigation and Monitoring Plan* (Appendix D to the EA), which provides for the applicant to follow the Avian Power Line Interaction Committee guidelines for raptor protection on power lines (including providing appropriate horizontal separation between energized conductors on transmission towers), the potential for electrocution of eagles perching on transmission towers is expected to be substantially minimized.

It is assumed that the applicant will implement the recommendations made by an independent eagle expert retained by the applicant to insert bird diverters on the optical ground wire along those segments of the line that cross ranch lands (i.e., golden eagle foraging habitat) to further reduce the potential for transmission line collisions. The diverters would include both the "BirdMark" models and the larger "Swan-Flight" models in designated reaches of both the north-south and east-west portions of the line. With implementation of these diverters, together with the fact that golden eagles are rarely known to strike a 220 kV transmission lines, the potential for collisions is expected to be very minimal.

With implementation of avoidance and minimization measures, implementation of the proposed alternative is not expected to have a significant adverse effect on this species.

Cumulative Effects

The geographic scope for golden eagle cumulative effects analysis consists of suitable breeding and foraging habitat within the cumulative projects area. Annual grassland is the primary land cover within the cumulative effects study area suitable for golden eagle foraging. Of the reasonably foreseeable future projects, only Project 75 (Yokohl Ranch, see Figure 7-4) would affect a large area of grassland/herbaceous land cover and in and of itself may significantly contribute to adverse effects to this land cover; however, the contribution of the proposed action

to the cumulative effect is negligible. Likewise, the measures in place to avoid/minimize the potential for electrocution and/or collision with the Cross Valley transmission lines would also result in no substantial contribution to the cumulative effect of high voltage transmission lines within the cumulative effects study area.

8.4.7 American Peregrine Falcon ((Delisted)/BCC/FP)

Affected Environment

The American Peregrine Falcon (*Falco peregrinus*) breeds on sea coasts, offshore islands, and mountainous areas with cliffs. It nests on rocky cliff ledges or ridges, in crevices, and may sometimes nest on human-made structures or in trees (Zeiner et al. 1990; Fix and Bezener 2000). Nests are usually near water and available prey, although this species may travel long distances to forage. It feeds in open habitats, where they hunt mostly birds, ranging in size from songbirds to small geese (White et al. 2002). The home range of individual pairs fluctuates with prey abundance, and varies from approximately 320 square kilometers (125 square miles) in Sonoma County to 1,662 square kilometers (616 square miles) in the Rocky Mountains. The peregrine falcon is a summer resident in the foothill and high mountain regions of Tulare County (except in the south), and present throughout the county in the winter.

One peregrine falcon was detected in the HCP Permit Area along the St. Johns River during riparian bird surveys on June 20, 2011 (Quad Knopf 2011). None were detected during general raptor surveys in 2010 (Quad Knopf 2012). CNDDDB includes no occurrences within 7.0 miles of the HCP Permit Area (CDFW 2013). The HCP Permit Area is not within this species nesting range; however, the HCP Permit Area is within the species wintering range. Rock outcrops adjacent to the HCP Permit Area in the foothill areas may be suitable for nesting by this species. Foraging habitat within the HCP Permit Area is likely in all land-cover types (3,380 acres) in the vicinity.

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

No Action Alternative

Under the No Action Alternative new urban growth and development within the study area would continue to occur as prescribed by local regulations and planning documents. East of the Friant–Kern Canal, areas currently supporting all natural land covers are within the Foothill Growth Management Plan and Rural Valley Lands Plan zoned for agriculture and mixed use

(County of Tulare 2012). West of the Friant–Kern Canal, the study area is zoned for agricultural uses, similar to existing uses. There is a possibility that future development may result in loss of American peregrine falcon foraging habitat and/or indirect effects to American peregrine falcon.

Development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia, and would be required to prepare CEQA documentation as projects with discretionary actions are proposed. Projects would be individually required to mitigate any potentially significant effects to American peregrine falcon. At the state level, the species is listed as “Fully Protected”; no take permits for Fully Protected species can be issued by the Department of Fish and Wildlife.

Determination

Under the No Action Alternative, foreseeably future development could not result in direct effects to American peregrine falcon as they are fully protected. Direct and/or indirect effects could occur to Peregrine falcon habitat. With implementation of avoidance, minimization, and mitigation measures that would be prescribed pursuant to CEQA, the No Action Alternative would not result in significant adverse effects.

Proposed Action Alternative

There is no nesting habitat within the HCP Permit Area, and foraging habitat is similar to that of golden eagles. Implementation of AMMs for golden eagles are expected to also benefit American peregrine falcons. Therefore, environmental consequences would be similar to golden eagle.

8.4.8 Swainson’s Hawk (ST)

Affected Environment

The Swainson’s hawk (*Buteo swainsoni*), a state listed threatened species, is a large, slender soaring hawk of the open plains, prairies, and ranchlands. They are long-distance migrants—nearly the entire summer breeding population moves from central North America to winter grounds in the pampas of South America, primarily Argentina. Within the state, this hawk is most common in the Central Valley along the Sacramento Delta (between Sacramento and Modesto) and in other locations in the northern San Joaquin Valley. Migrating individuals move south through the southern and central interior of California in September and October, and move north during March through May (Grinnell and Miller 1944). Swainson’s hawks have been observed on a number of occasions between Visalia and Exeter, Tulare County, which is in the vicinity of the HCP Permit Area.

Swainson's hawks forage in grasslands, grain and alfalfa fields, and livestock pastures. They eat mice (*Mus* spp.); gophers (*Geomyidae* spp.); ground squirrels (*Spermophilus* spp.); rabbits (*Leporidae* spp.); large arthropods; amphibians; reptiles; birds; and, rarely, fish (Polite 1990). They typically soar at low and high levels in search of prey, but may also walk on the ground to catch invertebrates and other prey or catch insects and bats in flight.

The Swainson's hawk breeds in stands with few trees in juniper-sage flats, riparian areas, and oak savannahs in the Central Valley (Bloom 1980). It nests on a platform of sticks, bark, and fresh leaves in a tree or large bush from 1.3–30 meters (4–100 feet) above ground. Breeding occurs late March to late August, with peak activity during late May through July.

The CNDDDB contains 14 occurrence records of Swainson's hawk in western Tulare County, seven occurrences in Kern County, and higher densities in Kings and Fresno Counties. No historical records of the Swainson's hawk are listed within 5 miles of the HCP Permit Area. The nearest occurrence is located approximately 6.7 miles southeast of the route along Outside Creek approximately 0.5 mile west-northwest of the intersection of Farmersville Road and State Highway 137 on May 21, 2000. An active nest was located in an oak tree (*Quercus* sp.) which was surrounded entirely by agricultural grain fields.

Suitable foraging habitat includes row crops and grassland habitats of ≥ 40 acres in size and all riparian corridors (Quad Knopf 2011g) and totals approximately 970 acres within the HCP Permit Area.

Nesting is likely in riparian and grassland land cover types that include single trees or small groups of trees within the HCP Permit Area and foraging is likely in all land cover types available (3,380 acres). No Swainson's hawk nests were identified during the 2011 Swainson's hawk survey conducted by Quad Knopf (2011f). Ongoing surveys in 2012 have not identified any Swainson's hawk nests.

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

No Action Alternative

Under the No Action Alternative new urban growth and development within the study area would continue to occur as prescribed by local regulations and planning documents. East of the Friant-Kern Canal, areas currently supporting grassland and agricultural land covers are within

the Foothill Growth Management Plan and Rural Valley Lands Plan zoned for agriculture and mixed use (County of Tulare 2012). West of the Friant–Kern Canal, the study area is zoned for agricultural uses, similar to existing uses. There is a possibility that future development may result in loss of nesting and foraging habitat available throughout the HCP Permit Area, take of Swainson’s hawk, and/or indirect effects to Swainson’s hawk.

Development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia, and would be required to prepare CEQA documentation as projects with discretionary actions are proposed. Projects would be individually required to mitigate any potentially significant effects to Swainson’s hawk. Additionally, the project proponent would need to apply for a permit from CDFW to authorize the incidental take of a state listed species resulting from construction, operation, and maintenance of the project. The permit would be developed to implement a conservation plan that will avoid, minimize, and compensate for potential adverse effects on threatened and endangered species that may result from Covered Activities from the project and provide a basis for take authorization pursuant to the ESA.

Determination

Under the No Action Alternative, foreseeably future development could result in direct and/or indirect effects to Swainson’s hawk. With implementation of avoidance, minimization, and mitigation measures that would be prescribed pursuant to CEQA as well as conservation strategies associated with an incidental take permit from CDFW, the No Action Alternative would not result in significant adverse effects.

Proposed Action Alternative

Direct and Indirect Effects

Construction Covered Activities

Under the Proposed Action, construction Covered Activities would result in the permanent loss of 30.5 acres of suitable Swainson’s hawk foraging habitat, permanent direct effects on 10 acres of suitable Swainson’s hawk foraging habitat, and temporary direct effects to 35.1 acres of suitable Swainson’s hawk foraging habitat. Although nesting Swainson’s hawk were not observed within the HCP Permit Area during focused surveys, nesting could occur within or adjacent to the HCP Permit Area at the time construction activities are initiated and direct or indirect effects to Swainson’s would potentially occur. Although Swainson’s hawk is not a covered species under the HCP, the project proponent would implement avoidance and mitigation measures for Swainson’s hawk in compliance with the Final Southern California Edison’s San Joaquin Cross Valley Loop 220 K V Transmission Line Project Final

Environmental Impact Report (CPUC A.08-05-039 SCH #: 2008081090) (FEIR). Mitigation measure 4.4-3a of the FEIR includes measures for avoidance of nesting Swainson's hawk and mitigation measure 4.4-3b includes compensation for loss of Swainson's hawk foraging habitat.

Potential direct and indirect effects to Swainson's hawks and their habitat would be similar as for burrowing owl and golden eagle discussed above in Sections 8.3.6 and 8.4.8 respectively.

Operations and Maintenance Covered Activities

Direct and indirect effects to Swainson's hawk from O&M activities would be similar as for burrowing owl and golden eagle discussed above in Sections 8.3.6 and 8.4.8, respectively.

Determination

The Proposed Action would result in direct and indirect effects to Swainson's hawk foraging habitat and has the potential to result in direct and/or indirect effects to nesting Swainson's hawk. With implementation of mitigation measures prescribed in the FEIR for the transmission line and implementation of the Proposed Action's conservation strategy, implementation of the proposed alternative is not expected to have a significant adverse effect on this species.

Cumulative Effects

The geographic scope for Swainson's hawk cumulative effects analysis consists of suitable foraging (grassland and agricultural land covers) and breeding (juniper-sage flats, oak savanna, and riparian land covers) within the cumulative projects area.

Maintaining agricultural uses in the region is a goal of local planning documents and policies; therefore, future projects would have to comply with these goals to maintain agricultural uses. Furthermore, the proposed action would not result in a substantial reduction in agricultural land cover. Of the reasonably foreseeable future projects, only Project 75 (Yokohl Ranch) would affect a large area of grassland/herbaceous land cover (see Figure 7-4) and, in and of itself, may significantly contribute to adverse effects to this land cover; however, the contribution of the proposed action to the cumulative effect is negligible.

The cumulative projects do not overlap significant areas of riparian habitat and would not substantially contribute to the reduction of this community. Local policies, including the Tulare County and City of Visalia General Plans, call for the avoidance of riparian habitat. Direct and indirect effects to riparian habitat would have to be mitigated pursuant to CEQA and Fish and Game Code protecting streambeds and associated riparian habitat. Furthermore, should southwestern willow flycatcher occupy riparian habitat within the footprint of a foreseeable future project, the project proponent would need to apply for a permit from the Service to

authorize the incidental take of a state-listed species. The permit would be developed to avoid, minimize, and compensate for potential adverse effects on threatened and endangered species.

The Cross Valley transmission line project would avoid nesting Swainson's hawk and would mitigate for loss of foraging habitat; therefore, the proposed action's contribution to the cumulative adverse effect on Swainson's hawk would not be cumulatively considerable.

8.4.9 Yellow Billed Cuckoo (FC/SE)

Affected Environment

The yellow-billed cuckoo (*Coccyzus americanus*) is a candidate for federal listing (FC) and a state listed endangered species that breeds in riparian habitats in isolated locations in California, especially along the Sacramento and Feather Rivers in Northern California, the South Fork of the Kern River in the southern Sierra Nevada in Kern County, and the lower Colorado River (Halterman et al. 2009; CDFG 1987). Yellow-billed cuckoo populations appear to have dramatically declined in recent decades, and cuckoos have become extirpated over much of their western range. The decline and extirpation of the yellow-billed cuckoo is likely due to the loss and fragmentation of riparian habitat by a variety of factors, including inundation by reservoirs, the construction of flood control facilities, and the conversion of riparian habitat to agricultural and urban development.

The yellow-billed cuckoo breeds and forages in large blocks of riparian habitat, particularly riparian woodlands with cottonwoods and willows (Halterman et al. 2009). This species is generally absent from heavily forested areas and large urban areas. The yellow-billed cuckoo prefers open woodland with clearings and low, dense, scrubby vegetation, often associated with a watercourse. Occupied habitat is usually comprised of Fremont cottonwood, willows (*Salix* spp.), velvet ash (*Fraxinus pennsylvanica*), mesquite (*Prosopis* spp), netleaf hackberry (*Celtis reticulata*), condalia (*Condalia lycioides*), whitebrush (*Aloysia* spp.), nettles, and other herbaceous wetland plants (Hughes 1999).

There are no historical records of yellow-billed cuckoos within 5 miles of the HCP Permit Area (CDFW 2013). The closest record of this species is 27 miles northwest of the northern-most point of the HCP Permit Area (CDFW 2013).

No critical habitat has been designated for this species. Suitable habitat for this species occurs in the riparian areas along Cottonwood Creek and St. John's River. Preliminary surveys by Quad Knopf (2011f) did not identify any individuals in potentially suitable habitat at Cottonwood Creek. Protocol-level surveys conducted in 2012 showed an absence of yellow-billed cuckoos and concluded that yellow-billed cuckoos are unlikely to occur at the St. John's River or at Cottonwood Creek (Quad Knopf 2012b). Eight acres of nesting and

foraging riparian habitat is available for this species in the HCP Permit Area along St. John's Creek and Cottonwood Creek. The habitats within the HCP Permit Area are narrow, linear riparian systems, which are generally between 5 and 15 meters wide. These linear systems consist of a single row of native broadleaf trees and shrubs along the river banks, with patches of open space. As such, the riparian habitats within the HCP Permit Area are less than ideal for the yellow-billed cuckoo (Quad Knopf 2012b).

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

Because of the habitat similarities of this species with the covered riparian bird species, the environmental consequences are expected to be the same as for Covered riparian bird species (see Sections 8.3.7 through 8.3.9).

8.4.10 Riparian Bird Species (BCC)

Affected Environment

Lawrence's goldfinch, yellow warbler, oak titmouse, and Nuttall's woodpecker are all designated by the Service as Birds of Conservation Concern. Yellow Warbler is also a California Species of Conservation Concern. Their habitat requirements are summarized below.

Lawrence's goldfinch (*Spinus lawrencei*) occurs and nests in habitats close to water including oak-pine woodlands, pinyon-juniper woodlands and lower montane habitats, chaparral, brushy fields, meadows, desert riparian, and palm oasis (Zeiner et al. 1990; Fix and Bezener 2000). Most individuals that breed in California winter in other southwestern states and in northern Mexico. They are generally absent in California from September to March. The breeding season begins in late March or early April.

Yellow warbler. The yellow warbler (*Setophaga petechia*) is found in riparian deciduous habitats in summer including cottonwoods, willows, alders, and other small trees and shrubs typical of low, open-canopy riparian woodland up to about 2,743 meters (9,000 feet). The eastern terminus of the Permit Area is at the edge of the known current range (Heath 2008). The yellow warbler usually arrives in California in April, and typically departs by October. Small numbers regularly overwinter in southern California lowlands. During migration, it visits woodland, forest, and shrub habitats. Yellow warblers breed in montane shrubbery in open conifer forests. Breeding occurs from mid-April into early August with peak activity in June. Territory often

includes tall trees for singing and foraging and a heavy brush understory for nesting (Green 2005). When foraging, they feed on insects and spiders gleaned from the upper canopy of deciduous trees and shrubs (Zeiner et al. 1990; Fix and Bezener 2000).

Oak Titmouse. The oak titmouse (*Baeolophus inornatus*) is a year-round resident in a variety of wooded habitats, including montane hardwood-conifer, montane hardwood, a variety of oak woodlands, valley and foothill riparian, and residential plantings (Zeiner et al. 1990; Fix and Bezener 2000). It is found in western California below 3000 feet, from Mendocino County and the head of Sacramento Valley south to Santa Barbara and Tulare counties (Grinnell and Miller 1944 PRBO). Oak titmouse requires oak and pine-oak woodlands with adequate natural or excavated cavities for nesting and sufficient canopy cover for foraging and roosting. It forages for insects, grain, seeds and nuts (Grinnell and Miller 1944 PRBO). There is some potential for nesting in cavities in riparian and oak woodland habitats, in poles, and in fence posts within and adjacent to the Permit Area, which is within the range of this species.

Nuttall's Woodpecker (*Picoides nuttallii*) is a permanent California resident found commonly in the Central Valley. It occurs in low-elevation oak and riparian woodlands in California, and in fall, migrates upslope to pine-oak dominated woodlands below 1,829 meters (6000 feet). Nuttall's woodpecker nests in cavities of live or dead trees or in dead limbs of cottonwoods, willows, sycamores, and oaks (Zeiner et al. 1990; Fix and Bezener 2000). Breeding activity occurs from late March to early July; with peak activity occurring from April to early June. Nuttall's woodpecker forages mostly in oak and riparian deciduous habitats by pecking, probing, drilling for sap, and gleaning from trunks, branches, twigs and foliage. It eats adult and larval insects, mostly beetles. Tree cavities and foliage provide cover for this species. It may nest in riparian and oak woodland habitats within or adjacent to the Permit Area.

Lawrence's Goldfinch, yellow warbler and oak titmouse all occur in the Sierra Nevada foothills in Tulare County. Small areas of oak woodland and riparian habitat at the east end of the HCP Permit Area may be suitable for foraging for all riparian species listed above. Suitable nesting habitat for these species occurs in the small areas of oak woodland and riparian habitats within and adjacent to the HCP Permit Area, particularly in areas near water. Available riparian habitat for these species totals eight acres within the HCP Permit Area.

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

Because of the habitat similarities of this species with the Covered riparian bird species, the environmental consequences are expected to be the same as for Covered riparian bird species (see Sections 8.3.7 through 8.3.9).

Tricolored and Yellow-headed Blackbird (CSC, BCC)

Affected Environment

Tricolored and yellow-headed blackbirds are both a California Species of Concern for nesting, and the yellow-headed blackbird is federally designated as a Bird of Conservation Concern. Habitat requirements for both are summarized below.

Yellow-headed blackbird. The yellow-headed blackbird (*Xanthocephalus xanthocephalus*) breeds locally in colonies in the Great Basin, Colorado Valley, Imperial Valley, western Mojave Desert, Central Valley, and select areas nearer the coast (Jaramillo 2008). The majority of the HCP Permit Area is within the species' breeding range. Small numbers of this species winter in the Imperial and Southern Central Valleys of California. The yellow-headed blackbird nests in dense emergent vegetation over relatively deep water, often along the borders of lakes and ponds. It forages in emergent vegetation in freshwater wetlands, croplands, muddy lakeshores, and other open, moist areas (Zeiner et al. 1990). Water depths at nest sites range from 16–110 centimeters (approximately 6–43 inches). Territories include ample areas of open water, but also edges with moderately dense vegetation and extensive channels (Jaramillo 2008). Nests are compact and rigid open cups made of woven vegetation, generally of the same type where the nest is attached (Twedt and Crawford 1995). During the nesting season, the diet consists almost exclusively of insects for both adults and young, with adults feeding their young almost entirely aquatic insects (Jaramillo 2008). At other times of year, seeds are the primary food item (Twedt and Crawford 1995). Yellow-headed blackbirds breed from mid-April to late July. Migrants occur from April into early October (Twedt and Crawford 1995).

Tricolored blackbird. The tricolored blackbird (*Agelaius tricolor*) breeds from the central California coast inland through the Central Valley, in coastal southern California from Ventura County southward, in the western Mojave Desert, and locally in northeastern California. Aside from scattered small breeding colonies in Oregon, Washington, and Nevada, this species is restricted to California and Baja California, where it occurs year-round (Beedy 2008). The

majority of the Permit Area is within the species' range. Tricolored blackbirds breed near fresh water, preferably in emergent wetlands with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, and tall herbs. Nest sites require accessible water, protection from predators, such as surrounding water or thorny vegetation, and suitable foraging areas with ample insect prey (Beedy and Hamilton 1999). Nests are placed low above the water or ground, usually bound to upright plant stems. Some nests may be placed in the canopy of willows (*Salix* spp.), valley oak (*Quercus lobata*) saplings, or ash trees (*Fraxinus* spp.). This species ranges widely from nesting sites, travelling more than 15 kilometers (approximately 9.3 miles) to forage (Beedy and Hamilton 1999). Foraging habitat includes irrigated row/crop agriculture fields, stock ponds and riparian areas with emergent vegetation within the Permit Area. During the non-breeding season, tricolored blackbirds prefer roosts of cattails and bulrushes near suitable foraging habitat (Beedy and Hamilton 1999).

Tricolored blackbirds nest in colonies that sometimes exceed 10,000 birds, and will nest as early as mid-March (Hamilton 1998). However, flocks of birds not attached to any breeding colony, and non-breeding birds attached to breeding colonies, may be encountered during the early breeding season. Some birds may arrive at colonies to begin nesting in May or even later, and birds nesting at one location may move to other locations to breed later in the season (Hamilton 1998). In winter, many retreat from the breeding areas and gather in large flocks in areas with abundant suitable foraging habitat, such as the Sacramento-San Joaquin Delta and the northern San Joaquin Valley.

Suitable riparian land cover types, row/crop agricultural fields and annual grasslands within and adjacent to the site may be suitable for the yellow-headed and tricolored blackbird. Suitable habitat within the HCP Permit Area includes eight acres of e riparian habitat, 324 acres of agricultural-row/field crop habitat and 1,048 acres of annual grassland habitat. An additional 10 acres of riverine habitat and 12 acres of basin/stock ponds could provide suitable habitat for the tricolored blackbird in the HCP Permit Area.

CNDDDB includes no occurrences of either species within 7.0 miles of the HCP Permit Area (CDFW 2013). However, the Tricolored Blackbird Portal (ICE-UCD 2012) includes a location 1.4 miles south of the site, along Dry Creek, where a colony of 50 individuals was present in 2008. This species was not observed during general surveys of the HCP Permit Area and no nesting locations have been located within the HCP Permit Area.

Environmental Consequences

Because of the habitat similarities of these species with the Covered riparian bird species, the environmental consequences are expected to be the same as for Covered riparian bird species (see Sections 8.3.7 through 8.3.9).

8.4.11 Grassland Bird Species (CSC/BCC)

Affected Environment

The loggerhead shrike, grasshopper sparrow and Oregon vesper sparrow are all listed as California Species of Concern. The loggerhead shrike is also federally listed as a Bird of Conservation Concern.

Loggerhead shrike. The loggerhead shrike (*Lanius ludovicianus*) is a California Species of Concern. During the nesting period, it can be found in lowlands and foothills throughout California. It prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches, and requires impaling sites, such as thorns, sharp twigs, or barbed wire, for skewering and manipulating its prey. It nests in densely foliated shrubs or trees. The highest density occurs in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats.

Grasshopper sparrow. The grasshopper sparrow (*Ammodramus savannarum*) breeds in foothill and lowland grasslands in California west of the Sierra Nevada and Cascade ranges and on the Pacific slope farther south. Grasshopper sparrows are known to occur in the Central Valley margins, such as near Porterville, Tulare County (Unitt 2008), which is approximately 20 miles south southwest of the Permit Area. Grasshopper sparrows occur in dense, dry, or well-drained annual and native grasslands with a mix of grasses and forbs. It may occur in fallow agricultural fields, especially those periodically planted in oats and barley. It nests in small depressions on the ground under overhanging grass or forbs, and searches for food (mostly insects) in dense, low-growing vegetation.

Oregon vesper sparrow. The Oregon vesper sparrow (*Pooecetes gramineus affinis*) winters in the foothills and valleys of southern California and surrounding the Central Valley, including the Sierra Nevada foothills of Tulare County. In California, it breeds only in the extreme northwestern part of the state (Erickson 2008). It is found in winter grasslands, open brushlands, meadows, stubblefields, and road edges (Erickson 2008). The subspecies prefers open ground with little vegetation, short grass, or low-growing annuals (Grinnell and Miller 1944). Of the two subspecies occurring in California (also including the Great Basin vesper sparrow, *P. g. confinis*), the Oregon vesper sparrow is probably the more common in winter north of Kern County (Erickson 2008). However, this information is based on relatively sparse specimen data, as the two subspecies are not distinguishable in the field. The Oregon vesper sparrow feeds on invertebrates and seeds gathered on the ground (Erickson 2008). The northeastern portion of the HCP Permit Area is within the known range of the Oregon vesper sparrow (Erickson 2008). Suitable habitat is present in grassland, blue oak woodland, and idle agricultural row/crop fields in that area.

A variety of relatively open (lacking dense vegetation) land-cover types found within the HCP Permit Area and vicinity, including 324 acres of agricultural row/crop fields, 1,048 acres of annual grasslands and eight acres of riparian habitat (which includes oak woodlands) provide suitable nesting and foraging habitat for these species. Furthermore, 1,423 acres of suitable nesting habitat for loggerhead shrike occur in orchards.

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

No Action Alternative

Under the No Action Alternative new urban growth and development within the study area would continue to occur as prescribed by local regulations and planning documents. East of the Friant–Kern Canal, areas currently supporting natural land covers (including annual grassland, riparian and agricultural habitat) are within the Foothill Growth Management Plan and Rural Valley Lands Plan zoned for agriculture and mixed use (County of Tulare 2012). West of the Friant–Kern Canal, the study area is zoned for agricultural uses. There is a possibility that future development may result in loss of annual grassland, riparian and agricultural habitat, direct impacts on special-status grassland bird species, and/or indirect effects to special-status grassland bird species.

Development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia, and would be required to prepare CEQA documentation as projects with discretionary actions are proposed. Projects would be individually required to mitigate any potentially significant effects to special-status grassland bird species.

Determination

Under the No Action Alternative, foreseeably future development could result in direct and indirect effects to special-status grassland bird species. With implementation of avoidance, minimization, and mitigation measures that would be prescribed pursuant to CEQA, the No Action Alternative would not result in significant adverse effects to special-status grassland bird species.

Proposed Action Alternative

Direct and Indirect Effects

Construction Covered Activities

Under the Proposed Action, construction Covered Activities would result in the permanent loss of 2.3 acres of suitable agricultural row/crop fields and 40.96 acres of annual grasslands. Additionally, 8.11 acres of orchards (suitable nesting habitat for loggerhead shrike) would be permanently lost. No oak woodland within the riparian habitat (suitable for grassland bird species) would be lost due to Covered Activities. Temporary direct effects would include disturbance of 85.6 acres of suitable habitat that serve as foraging habitat for these species, including annual grassland, agricultural-orchard, and agricultural-row/field crops.

Construction Covered Activities could also result in indirect effects to grassland bird species habitat via introduction of invasive species and noxious weeds, increased accumulation of trash, and increased public access. Spread of invasive non-native plants may occur by introducing seed from other sites via vehicles and construction equipment. Trash accumulation during the construction phase could increase the number of predators such as coyotes and foxes in the area which could impact individuals and the local population through increased predation. Clearing and grubbing activities in annual grasslands could result in exposure of nests to predators and humans. Creation and improvement of access roads could increase public access to the HCP Permit Area, which could further contribute to adverse indirect effects to grassland bird species and/or their habitat. Increased public use could also result in disturbance to active nests and harassment, harm, or mortality to individuals.

The Proposed Action does not include conservation strategies specific to these species; however, these species would benefit from the conservation strategies for nesting birds, burrowing owl. Direct effects would be minimized through avoidance of active nests (Nesting Bird-1) and establishing environmentally sensitive areas (C-3). Permanent direct effects would be compensated by conservation strategy for burrowing owl which would result in mitigation for direct effects to annual grassland and agricultural rowcrops. Indirect effects would be minimized by restricting vehicle speeds (C-4); prohibiting pets which can harass, harm, or kill birds (C-5); implementing a noxious weed and invasive plant control plan (C-6); trash management to avoid attracting predators (C-10); and constructing locking gates on access roads (C-11).

Operations and Maintenance Covered Activities

Class II O&M activities would result in temporary direct effects to 31.6 acres of grassland bird species nesting and foraging habitat. Indirect effects to grassland bird species for O&M activities would be similar to indirect effects from construction Covered Activities and include potential

for avoidance of suitable grassland and agricultural habitat due to noise and dust and increased spread of invasive species. Direct and indirect effects of O&M activities would be minimized through implementation of an O&M Environmental Compliance Plan (O&M-1), mapping of environmentally sensitive areas (O&M-3), conducting pre-activity surveys and monitoring (O&M-5), staying on existing access roads (O&M-6), restricting vehicle speeds and travel (O&M-7), prohibiting pets within the HCP Permit Area (O&M-8), revegetating temporarily disturbed areas (O&M-12), removing accumulated trash on a daily basis (O&M-13), and implementing a noxious weed and invasive plant control plan (O&M-14).

Determination

The Proposed Action would result in direct and indirect effects to suitable nesting and foraging habitat for grassland bird species; however, these effects would be relatively small in size, represent a small amount of habitat loss (approximately 2.3%) within the HCP Permit Area, and the majority of effects would be of short duration. In addition, with implementation of the above-mentioned O&M measures and the conservation strategy in the HCP, implementation of the proposed action is not expected to have a significant adverse effect on these species.

Cumulative Effects

Cumulative effects for grassland bird species would be similar as for burrowing owl (Section 8.3.6) and would not be cumulatively considerable.

8.4.12 American Badger (CSC)

Affected Environment

The American badger (*Taxidea taxus*) occurs from Northern Alberta southward to central Mexico and ranges from the Pacific coast eastward through Ohio (Williams 1986). American badgers are most common in annual grassland, savanna desert scrub, and mountain meadows near timberline, although the species habitat includes many plant community types in California.

The critical requirements of this species survival appear to be sufficient food, friable soils, and relatively open, uncultivated ground (Williams 1986). Mating usually occurs in late summer to early fall, and following a delayed implantation, young are born in March or April (Ahlborn 1990). Badgers are both nocturnal and diurnal creatures that are active yearlong with their home range shrinking in size during the winter months (Ahlborn 1990 1990). American badger use of home range varies with season and sex. Different areas of the home range are used more frequently at different seasons and usually are related to prey availability. Males generally have larger home ranges than females. According to Sargeant and Warner (1972), radio transmitter-tagged American

badgers have an average annual home range of 2,100 acres (850 ha). The home range of one female was 1,790 acres (725 ha) in summer, 131 acres (53 ha) in fall, and 5 acres (2 ha) in winter.

While habitat degradation, agriculture and urban development have been the primary cause for population decline in American badgers, indiscriminate poisoning and historical trapping have contributed to low population numbers (Williams 1986). Over the past century, American badger populations have declined due to their inability to survive on cultivated land, resulting in dwindling population numbers within the Central Valley (Williams 1986).

The American badger is a California Species of Concern and occurs throughout Tulare County. The HCP Permit Area is within the range of this species. CNDDDB query includes two occurrences from the same date and area, approximately 3.0 miles east of the Permit Area, in 1994 (CDFW 2013). No badgers or badger sign were detected in the HCP Permit Area during USFWS protocol-level surveys conducted for kit fox which employed the use of track stations, camera stations, spotlighting, and den searching in 2011 (Quad Knopf 2011h). Information obtained during the kit fox surveys and from additional site surveys were used to evaluate the potential presence of American badger.

Annual grassland (1,048 acres) and oak woodland occurring in riparian (eight acres) land-cover types provide suitable habitats for different parts of the species' life cycle.

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

Environmental consequences for American badger are similar to burrowing owl and San Joaquin kit fox discussed in Sections 8.3.6 and 8.3.10, respectively. Conservation strategies for burrowing owl and San Joaquin kit fox would likewise benefit American badger. Environmental consequences for the No Action and Proposed Action Alternatives would not significantly adversely affect American badger.

8.4.13 Bats

Affected Environment

The pallid bat and western mastiff bat are both designated as a California Species of Concern. Neither is federally listed. Their habitat requirements are summarized below.

Pallid Bat. The pallid bat (*Antrozous pallidus*) is widespread throughout the western United States; southern British Columbia, Canada; and mainland and Baja California, Mexico (Hermanson and O'Shea 1983; Hall 1981). Within the United States, it ranges east into southern Nebraska, western Oklahoma, and western Texas. The pallid bat is locally common in arid deserts (especially the Sonoran life zone) and grasslands throughout the western United States and also occurs in shrublands, woodlands, and forests at elevations up to 2,440 meters (8,000 feet) (Hermanson and O'Shea 1983; Hall 1981). Although this species prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging, it has been observed far from such areas (Hermanson and O'Shea 1983).

Pallid bat day roosts of single- or mixed-sex colonies, often including greater than 20 individuals and sometimes more than 200 individuals, are usually established in crevices or man-made structures (Hermanson and O'Shea 1983). The selection of crevices may vary seasonally in relation to “adaptive hypothermia” in the species. Pallid bat day roosts are typically in caves, crevices, mines, and occasionally in hollow trees and buildings, preferably with access to open areas for foraging.

Pallid bats forage for a variety of insects, including flightless arthropods picked up from the ground (e.g., scorpions and ground crickets), insects gleaned from vegetation (e.g., cicadas), insects taken in flight, and small vertebrates such as horned lizards and pocket mice that are taken on the ground. Although the species is capable of flying more than 18 miles, most foraging occurs within about two miles of the diurnal roost (Hermanson and O'Shea 1983). It is unlikely that they are “migratory” in the sense of moving long distances between summer and winter roosts, but they appear to move to different roosting areas in the cooler months. Pallid bats probably hibernate in the winter, but some winter activity has been observed (Hermanson and O'Shea 1983). Pallid bats typically give birth from May through June in the southwestern United States.

The pallid bat occurs throughout Tulare County, including the Permit Area. CNDDDB includes one roost occurrence (15 adults, 15 juveniles) at a bridge crossing over the St. John's River 1.4 mi east of the Permit Area, from 2004 (CDFW 2013).

Western Mastiff Bat. The western mastiff bat (*Eumops perotis californicus*) is widespread in the southwestern United States; the northern portion of Baja California, Mexico; and south into central mainland Mexico (Hall 1981). In the United States, it occurs in northern, central, and Southern California; the southern portion of Nevada; the southwestern half of Arizona; and the extreme southwestern portions of New Mexico and Texas (Hall 1981). In California, its yearlong range includes the San Joaquin Valley, the coastal region from the San Francisco Bay area south to San Diego, and the Transverse and Peninsular mountain ranges and Mojave and Colorado deserts of Southern California (Zeiner et al. 1990). The western mastiff bat occurs in the Sierra

Nevada foothills and eastern San Joaquin Valley portion of Tulare County, including the entire Permit Area.

The western mastiff bat occurs in a wide variety of chaparral, coastal scrub, coniferous and deciduous forest and woodland, and desert scrub habitats (Best et al. 1996; Zeiner et al. 1990). They form small colonies in day roosts up to about 100 individuals. Day roosts are established in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical (Best et al. 1996) as well as in trees and tunnels (Zeiner et al. 1990). This species has also adapted to roosting in buildings and has been observed hanging from various other kinds of man-made structures, including awnings, ledges over doors and windows, large cracks in masonry, and rafters (Best et al. 1996). Young are born from June to possibly September. Although western mastiff bats are yearlong residents in California and are known to shift day roosts throughout the year, whether they are seasonally migratory is unknown.

This species exhibits yearlong nocturnal activity and emerges from the day roost within about 40–50 minutes after sundown (Zeiner et al. 1990). It forages for a variety of small to large low- and weak-flying insects that it catches in flight from near ground level to the tops of trees, including dragonflies, damselflies, grasshoppers, crickets, mantids, walking sticks, true bugs, beetles, moths, ants, wasps, and bees. However, over rugged terrain these bats typically forage at much greater heights (600–700 meters, 1,970–2,297 feet) above the ground usually over mesquite, where it catches strong flying insects such as dragonflies, moths, and beetles (Jameson and Peeters 1988).

The CNDDDB includes three roost records of western mastiff bat within seven miles of the HCP Permit Area, including two approximately two and a half miles south of the northeastern segment of the HCP Permit Area (CDFW 2013). None were detected during acoustical monitoring along the St. John’s River in the fall 2011 (Quad Knopf 2012c).

Roosting habitat within the HCP Permit Area includes buildings in developed portions of the HCP Permit Area and vicinity, and foraging habitat includes in annual grasslands, orchards, riparian areas and open oak woodlands. Roosting sites for are usually established in crevices or man-made structures for colonies (Hermanson and O’Shea 1983). Western mastiff bats roost in crevices on cliff faces, high buildings, trees and tunnels. The selection of crevices may vary seasonally in relation to “adaptive hypothermia” in the species. Species specific surveys were not conducted for pallid bat or western mastiff bat, yet there is a moderate potential for the species to occur due to the presence of suitable roosting and foraging habitat within the Permit Area. Buildings and structures in the western portion of the Permit Area may provide suitable roosting habitat. Quad Knopf (2012c) also noted the presence of suitable habitat within the Permit Area.

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

No Action

Under the No Action Alternative (i.e., the future condition without the proposed HCP permit), the Cross Valley Transmission Line will not be constructed and new urban growth and development within the study area would continue to occur as prescribed by local regulations and planning documents. East of the Friant–Kern Canal, areas currently supporting natural land covers are within the Foothill Growth Management Plan and Rural Valley Lands Plan zoned for agriculture and mixed use (County of Tulare 2012). West of the Friant–Kern Canal, the study area is zoned for agricultural uses. There is a possibility that future development projects may result in loss of annual grassland and riparian oak-woodland roosting and foraging habitats and/or indirect effects to annual grassland and riparian oak-woodland habitats and to bats. Development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia, and would be required to prepare CEQA documentation as projects with discretionary actions are proposed. Projects would be individually required to mitigate any potentially significant effects to bats. Additionally, the project proponent would need to apply for a permit from the Service to authorize the incidental take of federally listed species resulting from construction, operation, and maintenance of the project. The permit would be developed to implement a conservation plan that will avoid, minimize, and compensate for potential adverse effects on threatened and endangered species that may result from Covered Activities from the project and provide a basis for take authorization pursuant to the ESA.

Determination

Under the No Action Alternative, foreseeably future development could result in direct and indirect effects to annual grassland and riparian oak-woodland habitats and to bats. With implementation of avoidance, minimization, and mitigation measures that would be prescribed pursuant to CEQA as well as conservation strategies associated with an incidental take permit from the Service, the No Action Alternative would not result in significant adverse effects.

Proposed Action

Direct and Indirect Effects

Construction Covered Activities

Under the Proposed Action, construction Covered Activities would result in the permanent loss of 0.35 acres of developed, 8.11 acres of orchard, 40.96 acres of grassland, 0.14 acre of vernal pools and 0.17 acres of ditch land cover types available for bats. Oak woodland (within riparian habitat) would not be lost or permanently effected due to construction Covered Activities. Construction Covered Activities would result in temporary direct and indirect effects to bats due to clearing and grubbing and grading activities related to construction of access roads and pads, footings and foundations for the transmission line. Temporary indirect effects would also result from grading activities associated with construction of work areas. Temporary direct effects would include disturbance of 86.7 acres of suitable roosting and foraging habitat for this species. Temporary direct effects would occur within work areas that would not be graded but may require equipment access or placement of structures.

The creation of access roads could increase public access to the Permit Area. Increased use of the area would further contribute to adverse direct and indirect effects to bat habitat by providing additional mechanisms for noise disturbance, dust and mortality of bats from equipment staging and movement; consequently, these factors could attribute to bats avoiding suitable habitat available in the Permit Area.

The Proposed Action does not include conservation strategies for bats that would reduce potential adverse effects. Additional mitigation measures include preconstruction surveys, buffer zones and an Operation and Maintenance Environmental Compliance Plan will be prepared to provide guidelines for resource protection during O&M Covered Activities (AMM O&M-1).

Operations and Maintenance Covered Activities

Class I O&M activities would be conducted entirely within the drivable surface of access roads, pads, or from aircraft, and would not disturb plants or the soil surface in natural vegetation; however, there would be indirect effects from Class I O&M activities to bat habitat by way of noise and dust.

Class II O&M activities are conducted in part in natural vegetation outside of pads and roads, and would disturb vegetation and soil in those areas. Class II O&M activities would result in temporary direct effects to 31.12 acres of bat roosting and foraging habitat. Indirect effects to bat species for Class II O&M activities would be similar to indirect effects from construction Covered Activities and include potential for avoidance of suitable habitat due to noise and dust

and increased spread of invasive species. Mitigation measures include preconstruction surveys, buffer zones and an Operation and Maintenance Environmental Compliance Plan will be prepared to provide guidelines for resource protection during O&M Covered Activities (AMM O&M-1); it will provide maps of sensitive resources and appropriate buffers to be implemented within the Permit Area. Also, temporarily disturbed areas will be revegetated (O&M-12), and a noxious weed and invasive plant control plan will be implemented (O&M-14).

Determination

There are no known occurrences of pallid bat or western mastiff bat in the Permit Area and no bats were detected during surveys for these species; however a variety of land-cover types found within the Permit Area provide suitable roosting and foraging habitat for these species. The Proposed Action would result in temporary direct and indirect effects to suitable nesting and foraging habitat for these bat species. However, these effects would be relatively small in size, represent a small amount of habitat loss (approximately 3.3%) within the HCP Permit Area, and the majority of effects would be of short duration. In addition, with implementation of the above-mentioned O&M measures and the conservation strategy in the HCP, implementation of the proposed action is not expected to have a significant adverse effect on these species.

Cumulative Effects

Cumulative effects to bat species would be similar as for special-status bird species including grassland species. Additionally, foraging bat species have the potential to be affected by transmission line collision and potential effects from collision would be similar as discussed under golden eagle. The proposed action would not result in cumulatively considerable effects to bats.

8.4.14 Special-Status Plants – Annual Grassland Habitat

Affected Environment

Eight special-status plants have the potential to occur within the grassland habitat located east of Friant-Kern Canal within the HCP Permit Area: San Joaquin adobe sunburst, striped adobe-lily California jewel-flower, Kaweah brodiaea, recurved larkspur, lesser saltscale, Calico monkeyflower, Earlimart Orache (Figure 8-26). None of these species were observed during focused surveys conducted in 2010 and 2011 (Quad Knopf 2011d, 2011e).

San Joaquin Adobe Sunburst (FT, SE). San Joaquin adobe sunburst (*Pseudobahia peirsonii*), also called Tulare pseudobahia, is federally listed threatened, state listed endangered, and classified as CRPR 1B.1 (CNPS 2012). San Joaquin adobe sunburst is known to occur in Fresno, Tulare, and Kern Counties limited to grasslands dominated by non-native annual plants such as wild oats (*Avena fatua*), charlock (*Sinapis arvensis*), soft chess (*Bromus hordeaceus*), red brome (*Bromus madritensis*

ssp. *rubens*), and redstem filaree (*Erodium cicutarium*). San Joaquin adobe sunburst is a slender, woolly annual in the sunflower family (Asteraceae) that blooms between March and April and grows between 295 and 2,625 feet AMSL in heavy adobe clay soils (CNPS 2012).

There are 43 historical occurrences of San Joaquin adobe sunburst in Tulare County. Twelve of those are extirpated or are presumed destroyed. Of the 31 remaining occurrences, 18 are small and contain fewer than 250 plants. No Critical Habitat for San Joaquin adobe sunburst has been established. The CNDDB includes four occurrences within 7.0 miles of the project site, the nearest approximately 4.1 miles to the north (CDFW 2013).

Striped Adobe-Lily (CRPR 1B.1). The striped adobe-lily (*Fritillaria striata*) is classified as CRPR 1B.1 species. It is endemic to the Sierra Nevada and Tehachapi Range foothills and occurs on adobe clay soils or other heavy clay soils within blue-oak woodlands and grasslands. This species occurs between 443 and 4,774 feet amsl in elevation and flowers from February to April. There is no record of this species occurring within five miles of the HCP Permit Area (CDFW 2013). There is limited habitat within the project site for this species, but it was not found during 2010 and 2011 rare plant surveys (Quad Knopf 2011d, 2011e).

California Jewel-flower (FE/SE). The California jewel-flower (*Caulanthus californicus*) is a federally and state listed endangered species. It is addressed in the Recovery Plan for Upland Species in the San Joaquin Valley (Service 1998b). Critical habitat has not been designated for this species. This plant occurs on sandy soils within chenopod scrub, pinyon juniper woodland, and grassland habitats. The flowering period is between February and May and the elevation ranges between 230 and 328 feet AMSL. There is no record of this species occurring within five miles of this project site (CDFW 2013).

Kaweah Brodiaea (SE). The Kaweah brodiaea (*Brodiaea insignis*) is state listed endangered and classified as CRPR 1B.2 species by CNPS. Kaweah brodiaea is distributed in the Sierra Nevada foothills in Tulare County in the Tule and Kaweah River basins. Micro-habitat includes granite substrates in deep clayey soils on south–southwest facing slopes, usually in grassland surrounded by woodland. Kaweah brodiaea blooming period is between April and June and the elevation ranges between 492 and 4,593 feet AMSL. The CNDDB includes four occurrences within 7.0 miles of the project site, the nearest approximately 2.5 miles to the southeast (CDFW 2013).

Recurved Larkspur (CRPR 1B.2). The recurved larkspur (*Delphinium recurvatum*) is classified as CRPR 1B.2 species. Recurved larkspur was widely dispersed throughout the San Joaquin Valley and is now thought to be limited to Tulare, Kern, and San Louis Obispo counties, including three populations recorded in Tulare County (CDFW 2013). Recurved larkspur is found on poorly drained, fine alkaline soils in chenopod scrub, valley and foothill grassland, and cismontane woodland. The blooming period is March to June and grows from elevation ranges

of 10–2,592 feet AMSL (CNPS 2012). The CNDDDB includes seven occurrences within 7.0 miles of the project site, the nearest approximately 1.2 miles to the north (CDFW 2013).

Lesser Saltscale (CRPR 1B.2). The lesser saltscale (*Atriplex minuscula*) is classified as CRPR 1B.2 species. Lesser saltscale occurs in chenopod scrubland, grassland, and alkali sink habitats, but it also is known to occur in wet areas. The blooming period is May to October and grows from elevation ranges of 50–660 feet AMSL. Lesser saltscale is addressed in the Recovery Plan for Upland Species of the San Joaquin Valley (Service 1998b). Priorities for recovery include protection of existing populations and protection of alkali sink habitats. There are two records of lesser saltscale occurring within Tulare County. One record occurs on public land owned by the City of Visalia and the other on the Tulare County Landfill, owned by the County of Tulare (CDFW 2013). Within five miles of the HCP Permit Area there is one occurrence of lesser saltscale. This location is approximately three miles west of the southern terminus of the transmission corridor.

Calico Monkeyflower (CRPR 1B.2) The Calico monkeyflower (*Mimulus picus*) has no federal or State status, but it is a CRPR 1B.2 species (CNPS 2012). Calico monkeyflower is endemic to central California in the southern Sierra Nevada Mountains and the Tehachapi Mountains of Kern and Tulare Counties. This species flowers between March and May and ranges in elevation from 320–4,160 feet AMSL. Calico monkeyflower is typically found in bare, sunny areas around shrubs and rock outcrops, and it grows best in well drained granitic soil. There are four populations that occur within Tulare County. All of these populations are south of the HCP Permit Area, with the closest population located near Lindsay.

Earlimart Orache (CRPR 1B.2). The Earlimart orache (*Atriplex erecticaulis*) is classified as CRPR 1B.2 species (CNPS 2012). This plant species is commonly found in valley and foothill grassland between 131 and 328 feet in elevation AMSL. It flowers from August and September. There is one record of this species occurring within five miles of the project site (CDFW 2013).

Environmental Consequences

Methodology for Impact Analysis

The methodology for impact analysis and identifying the threshold of significance is described earlier in Section 8.1, Methodology.

No Action Alternative

Under the No Action Alternative new urban growth and development within the study area would continue to occur as prescribed by local regulations and planning documents. Suitable annual grassland habitat within the HCP Permit Area could be converted to developed uses in

conformance with the Foothill Growth Management Plan and Rural Valley Lands Plan (County of Tulare 2012). Future development would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia, and would be required to prepare CEQA documentation if discretionary actions are proposed. For special-status plants federally or state listed, focused surveys would need to be conducted an application submitted for a permit from the Service and/or CDFW to authorize the incidental take of listed species if it is present. The permit would be developed to implement a conservation plan that would avoid, minimize, and compensate for potential adverse effects on threatened and endangered species.

Determination

Under the No Action Alternative, foreseeably future development could result in direct and indirect effects to special-status plant species and/or their habitat. With implementation of avoidance, minimization, and mitigation measures that would be prescribed pursuant to CEQA as well as conservation strategies associated with an incidental take permit from the Service and/or CDFW, the No Action Alternative would not result in significant adverse effects.

Proposed Action Alternative

Construction Covered Activities would result in the permanent loss of 40.96 acres of annual grasslands, some of which provides suitable habitat for special-status plant species. Construction Covered Activities could also result in indirect effects through the introduction of invasive species and noxious weeds, increased trash, vegetation and soil disturbance, and improved public access. Spread of invasive nonnative plants may occur through movement of vehicles and construction equipment. The creation and improvement of access roads could increase public access to the HCP Permit Area, which could further contribute to adverse direct and indirect effects. The Proposed Action does not include a conservation strategy for special-status plants; however, AMMs and conservation strategies developed for covered species would also benefit special-status plants. Direct effects would be minimized through mapping of environmentally sensitive areas (C-3, O&M-3), locking access points (C-11), conducting an environmental screening process (O&M-4), pre-activity surveys and monitoring (O&M-5), staying on existing access roads (O&M-6), revegetating temporarily disturbed areas (O&M-12), implementing a fire management plan (C-7, O&M-13), and implementing a noxious weed and invasive plant control plan (C-6, O&M-14).

Additionally, the project proponent would implement mitigation measures as prescribed in the FEIR for the Southern California Edison's San Joaquin Cross Valley Loop 220 KV Transmission Line Project (CPUC A.08-05-039 SCH #: 2008081090) (FEIR). Mitigation measure 4.4-1a (rare plant surveys) and Mitigation Measure 4.4-1b (Agency consultation, impact avoidance,

minimization and compensation) would avoid special-status plant species and provide compensation in accordance with CDFW should direct effects occur.

Determination of Significance

The proposed action would result in direct and indirect effects to habitat suitable for special-status plants and has the potential for direct and/or indirect effects to populations of special-status plants throughout the 30-year term. With implementation of the conservation strategy and the applicant's implementation of mitigation measures of the FEIR, proposed action is not expected to have a significant adverse effect on these species.

Cumulative Effects

The geographic scope for the special-status plants cumulative effects analysis consists of annual grasslands and documented occurrences within the extent of the cumulative projects list (Figure 8-26). Occurrences of special-status plants do occur in proximity to reasonably foreseeable future projects including 2 occurrences of California jewelflower, 1 occurrence of San Joaquin adobe sunburst, and 3 occurrences of recurved larkspur. Additionally several occurrences of Kaweah brodiaea are within Yokohl Ranch. However, as there are no occurrences within the Proposed Action, and conservation measures would avoid occurrences should they be present during the term of the action, the contribution of the proposed action to the cumulative effect is negligible. With integration of the conservation strategy and mitigation measures from the EIR, the proposed action's contribution to the cumulative adverse effect on special-status plants would not be cumulatively considerable.

8.4.15 Special-Status Plants – Vernal Pool Habitat

Affected Environment

Greene's Tuctoria (FE, CR). Greene's tuctoria (*Tuctoria greenei*) is federally listed endangered, state designated rare (CR), and a CRPR 1B.1 species (CNPS 2012). Greene's tuctoria occurs in the Central Valley in small or shallow vernal pools or the early drying sections of large, deep vernal pools. Greene's tuctoria blooming period is between May and September and ranges in elevation from 98–3,511 feet above mean sea level (AMSL). The species is more typically found on the margins of pools rather than in the deeper portions as it appears less tolerant to long periods of inundation than other vernal pool grasses. Due to the species presence on the margins of pools, it appears to make the species more vulnerable to impacts from grazing (Stone et al. 1988). Critical Habitat is limited to eight locations from Lassen National Forest to north of Fresno. No Critical Habitat is located within Tulare County; and therefore, within the HCP Permit Area. CNDDDB includes two occurrences within 7.0 miles of the project site, approximately 1.4 and 2.1 miles to the south, but from 1986 and presumed extirpated (CDFW 2013).

Vernal Pool Smallscale (CRPR 1B.1) Vernal pool smallscale (*Atriplex persistens*) is classified as CRPR 1B.1 species (CNPS 2012). Vernal pool smallscale has been recorded within the San Joaquin Vernal Pool Region, which includes the counties of Merced, Stanislaus, and Tulare; populations have also been recorded in Glenn, Madera, and Solano counties. In Tulare County there is one historic record of vernal pool smallscale located on the CDFW Stone Corral Ecological Reserves near Sequoia Field and Yettem, and thus are protected. Vernal pool smallscale is found in large alkaline pools at an elevation range between 30–375 feet AMSL.

Environmental Consequences

Environmental consequences for vernal pool special-status plants would be the same as those for vernal pool covered plant species (see Sections 8.3.11-8.3.13). The conservation strategy implemented for vernal pool covered plants would likewise benefit vernal pool special-status plants; therefore, the proposed action is not expected to have a significant adverse effect on these species.

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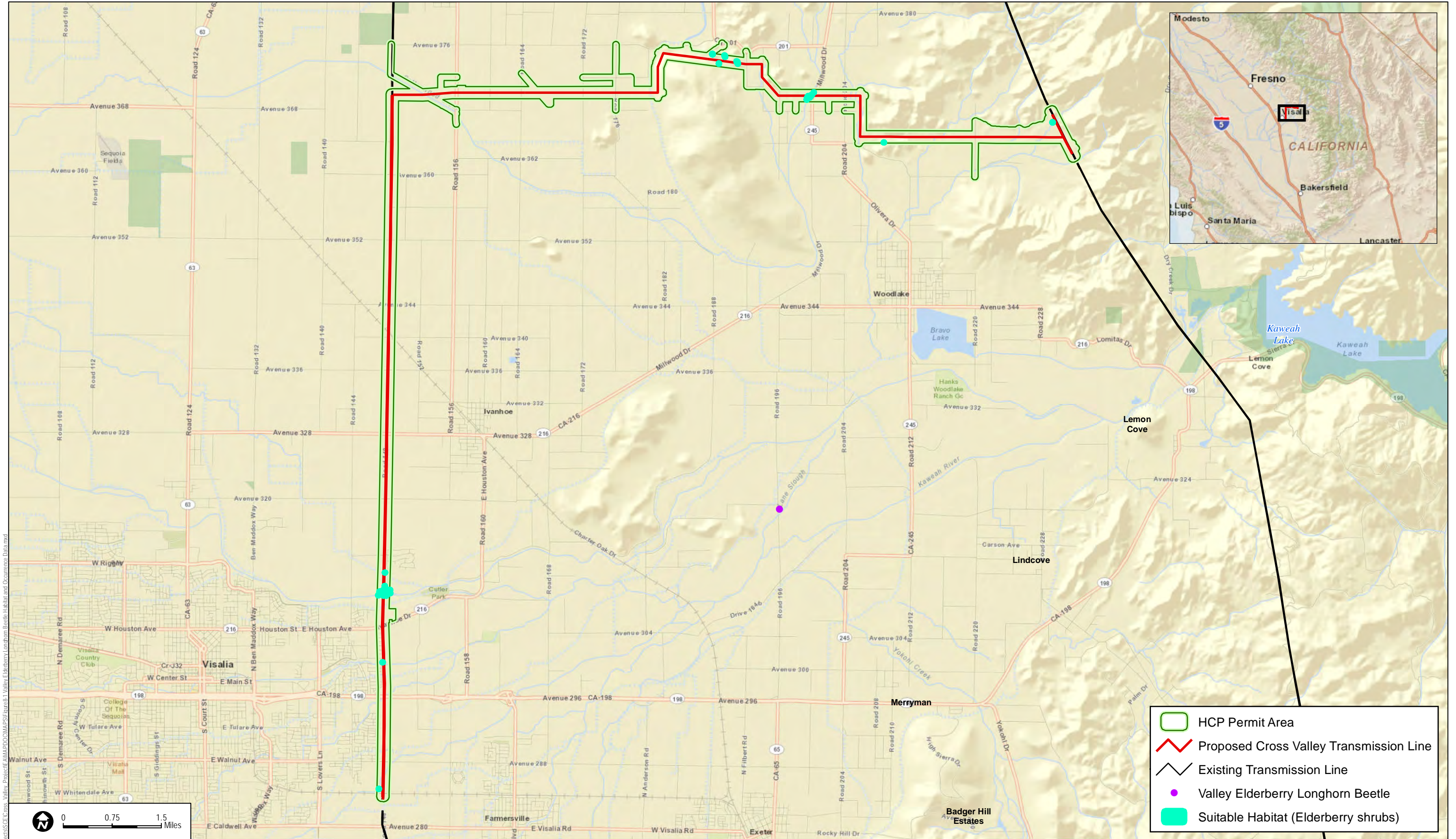
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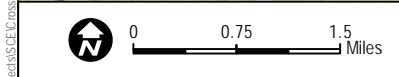


SOURCE: SCE 2013, CNDDB 2013, ESRI Online

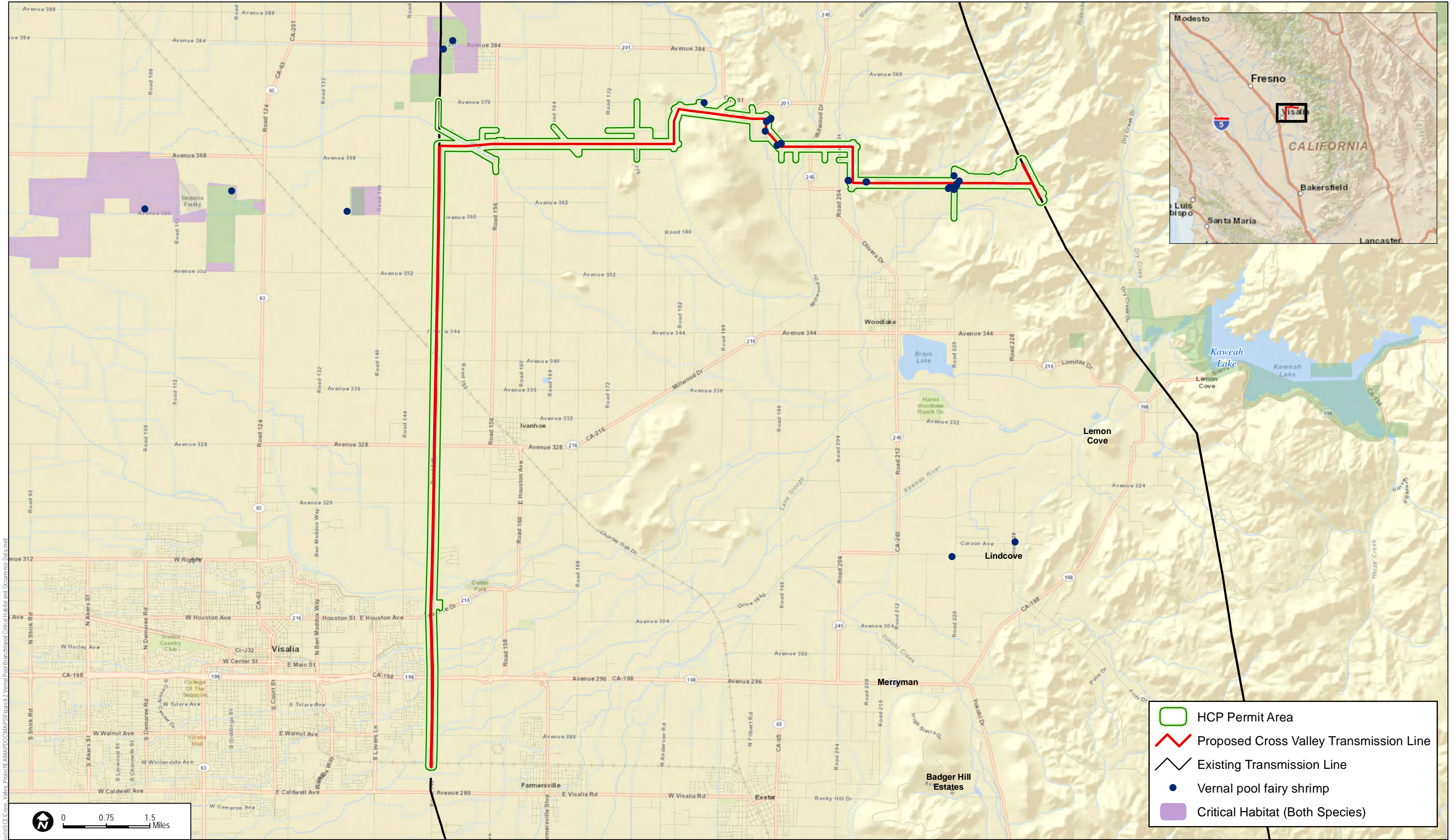
FIGURE 8-1

Valley Elderberry Longhorn Beetle Habitat and Occurrence Data

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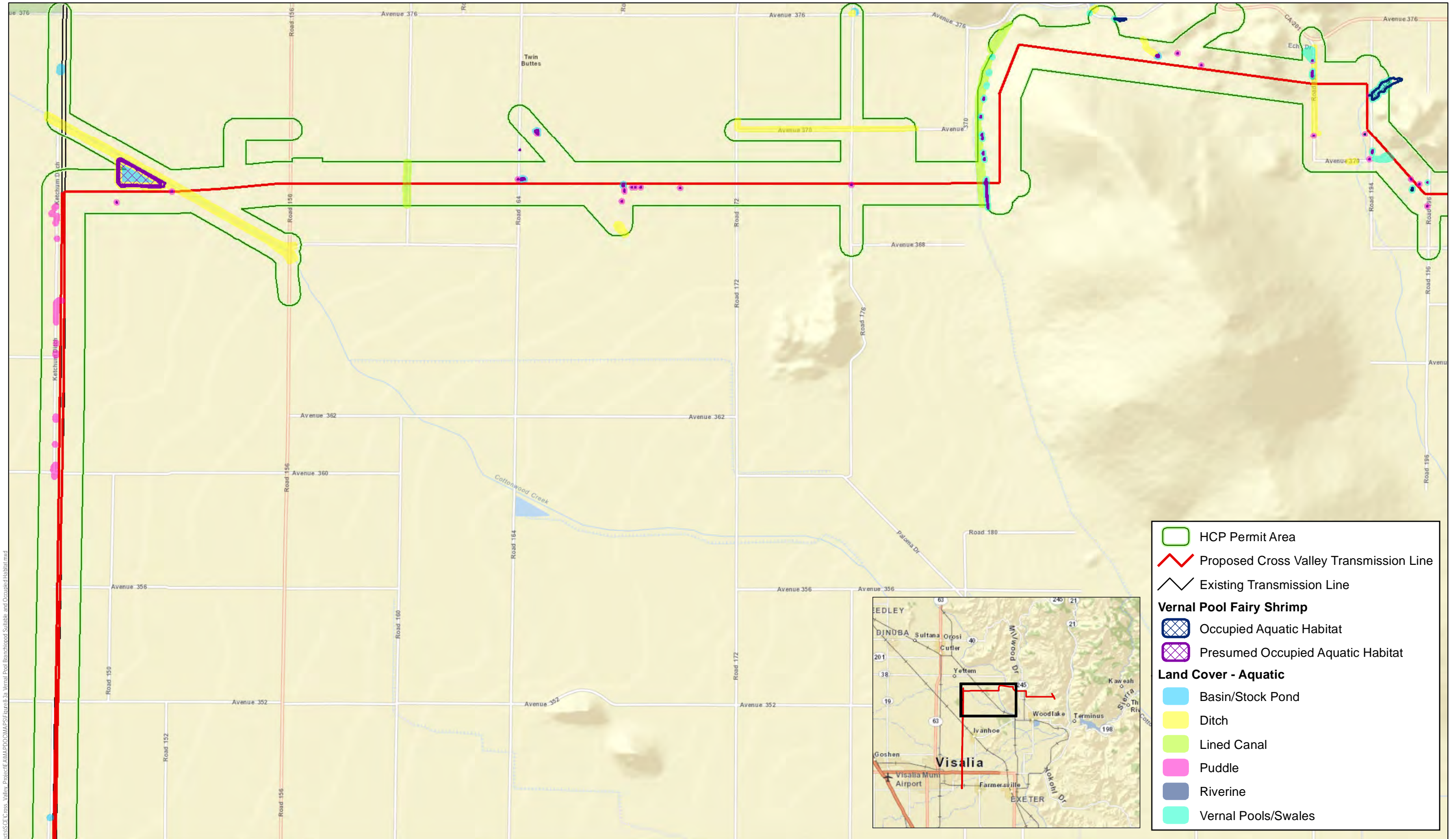


SOURCE: SCE 2012 & 2013, CNDDDB 2013, USFWS 2013, ESRI Online

FIGURE 8-2

Vernal Pool Branchiopod Critical Habitat and Occurrence Data

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HCP Permit Area

Proposed Cross Valley Transmission Line

Existing Transmission Line

Vernal Pool Fairy Shrimp

Occupied Aquatic Habitat

Presumed Occupied Aquatic Habitat

Land Cover - Aquatic

Basin/Stock Pond

Ditch

Lined Canal

Puddle

Riverine

Vernal Pools/Swales

SOURCE: SCE 2012 & 2013, ESRI Data 2010

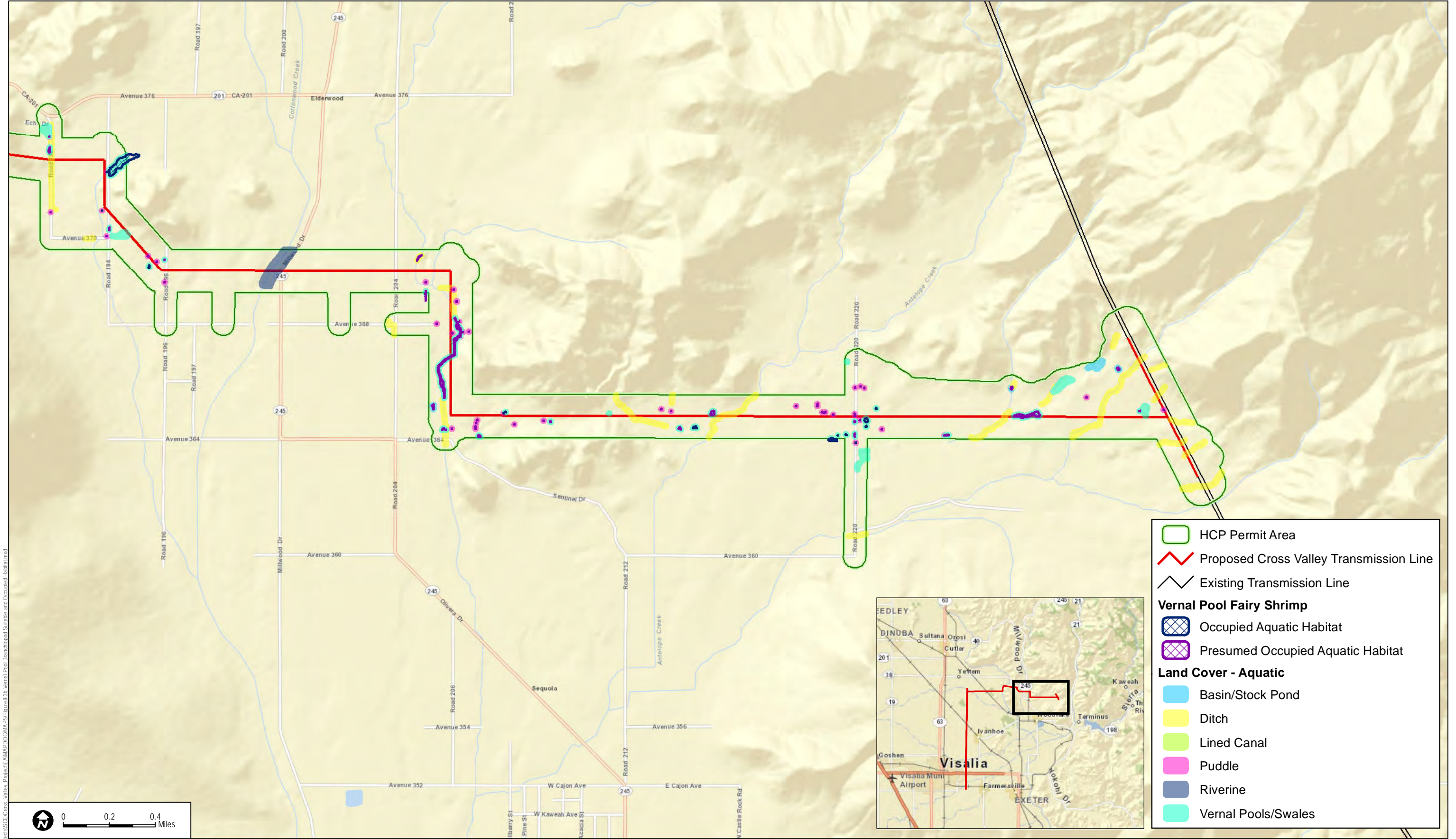
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CROSS VALLEY TRANSMISSION LINE HABITAT CONSERVATION PLAN ENVIRONMENTAL ASSESSMENT

FIGURE 8-3a
Vernal Pool Branchiopod Suitable and Occupied Habitat

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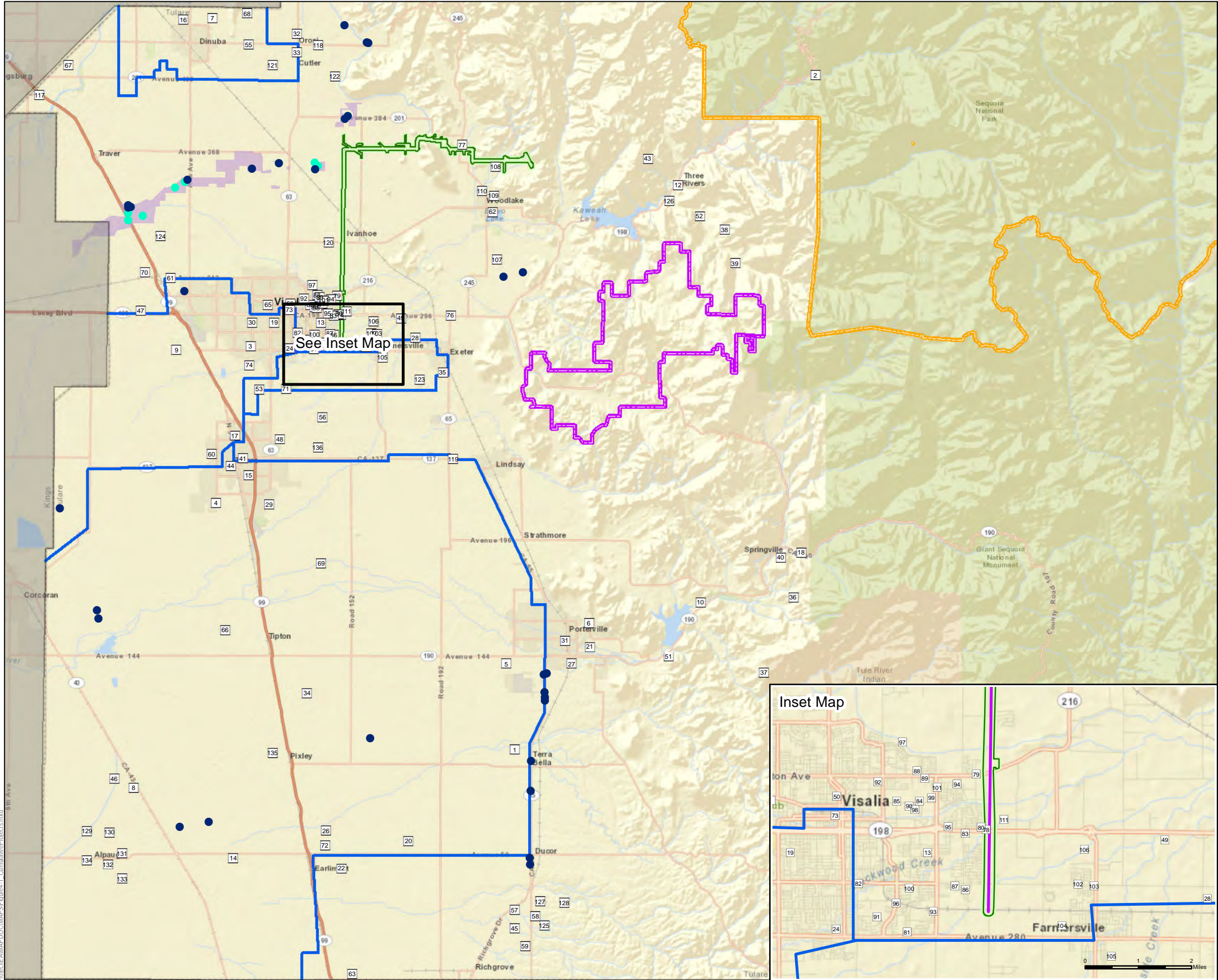


SOURCE: SCE 2012 & 2013, ESRI Online

FIGURE 8-3b

Vernal Pool Branchiopod Suitable and Occupied Habitat

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HCP Permit Area

Vernal Pool Fairy Shrimp

Vernal Pool Tadpole Shrimp

Critical Habitat (Both Species)

Project 11

Project 112

Project 42

Project 75

Project Number, Name

1, Final Site Plan No. PSR 12-001

2, Rehabilitate Generals Highway

3, Avenue 280 Widening Project

4, Anaerobic Co - Digestion Facility

5, Special Use Permit No. PSP 08-122

6, State Route 190 and Road 284 Improvements

7, Special Use Permit No. PSP 12-005

8, Alpaugh School Reconstruction

9, State Route 99 Tulare to Goshen Six-Lane Project

10, Tulare River Indian Reservation Road Improvement

11, Central Valley Independent Fiber Optic Network

12, Tentative Parcel Map No. PPM 11-013

13, Special Use Permit No. PSP 11-045

14, Special Use Permit No. PSP 08-067

15, State Route 99/Cartmill Ave Interchange Improvment

16, Final Site Plan No. PSR 11-001

17, Tentative Tract Map No. TM 816

18, River Island Water Treatment Plant

19, Oakes Basin Project

20, Special Use Permit No. PSP 09-068

21, City of Porterville Plano St Bridge Widening

22, Special Use Permit No. PSR 11-007

23, Bellota Substation Expansion

24, Backfill Mooney Blvd Detention Basin

25, Dept Water Resources Non-project Water Renewal

26, Special Use Permit No. 09-038

27, Riverwalk Marketplace Phase 2

28, Special Use Permit No. PSP 10-041

29, Sunrise Park

30, Medical Transport Helipad

31, Routine River/Slough Channel

32, Blending Tank Project

33, Acquisition of Treiche/Ratcliff Parcels

34, Pixley Irrigation District System Expansion

35, Special Use Permit No. PSP 10-010

36, Tentative Parcel Map/Final Site Plan No. PPM 11-014

37, Special Use Permit No. PSP 11-013

38, Tule River Indian Tribe Wastewater (PSP 10-002)

39, Mountain Road M319 Bridge Replacement

40, Water Facilities Replacement Project

41, College of The Sequoias Tulare Center Master Plan

42, Sierra Nevada Bighorn Sheep EA

43, Tentative Parcel Map No. PPM 11-001

44, Pratt Mutual Water Company System Improvment

45, Special Use Permit No. PSP 10-051

46, Special Use Permit No. PSP 06-044

47, Special Use Permit No. PSP 10-003

48, New Elementary School at Seminole and Morrison

49, Water Conservation Plant Upgrades

50, Packwood Creek Check Structure

51, Wilcox Mine PWR 06-001

52, Robert Tucker (PPM 09-034)

53, Santa Fe Bike Path/Multipurpose Trail Connection

54, CA High Speed Train

55, Mountain View Ave/El Monte Way Widening

56, Special Use Permit No. PSP 09-075

57, Vestal Almond Solar Generation Facilities

58, Vestal Fireman Solar Generation Facilities

59, Vestal Herder Solar Generation Facilities

60, Proposed Tower No. 2

61, Betty Drive Interchange

62, Special Use Permit No. PSP 09-050

63, Special Use Permit No. PSP 09-011

64, Order No. R5-20100130 Waste Discharge

65, Preston St Crossing of Mill Creek

66, Silver Oak Dairy

67, Special Use Permit No. PSP 10-020

68, Special Use Permit No. PSP 10-055

69, Lerda-Goni Farms Dairy

70, Goshen

71, Rancho Sierra

72, Earlimart

73, Visalia General Plan Update

74, Southeast Area Plan

75, Yokohl Ranch Project Area

76, State Route 65 Widening

77, State Route 245 to 201 Widening

78, State Route 198/Road 148 Interchange

79, River Run Ranch Vesting

80, Willow Creek 2 Multifamily Development

81, South Point Villas

82, Willow Springs

83, DeelYnna Ranch

84, Eagle Meadows of Visalia 2

85, Eagle Meadows of Visalia 1

86, Woodside Sousa Property

87, Quail River

88, Rivers Edge Unit 3

89, Lance Lane Estates

90, Riverbend Estates

91, Maddox at Caldwell VI

92, St Charles Park

93, Graystone

94, Teakwood Estates

95, Mineral King Business Park

96, Maddox at Caldwell VII

97, St. John's Riverwalk

98, Sequoia Heights No. 2

99, Oak Park Estates

100, Pinkham Ranch

101, La Dolce Villas

102, Sierra Woods/Phase IV

103, Walnut Creek All-American

104, Hacienda Place

105, Romero

106, Highway 198 Corridor Specific Plan

107, Tentative Subdivision Map 767

108, Tentative Subdivision Map 805

109, Castle Rock Park

110, Majestic Homes

111, Future Community Park

112, Big Creek Rebuild

113, Visalia Future Class I Bike Projects

114, Tulare County Future Class II Bike Projects

115, Pena

116, South County Correctional Facility

117, Kingsburg 13 (Solar)

118, East Orosi 1 (Solar)

119, Lindsay 134 (Solar)

120, Ivanhoe 13 (Solar)

121, Alta 16 (Solar)

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128, Vestal Fireman (Solar)

129, Atwell Island (Solar)

130, Atwell Island West (Solar)

131, Alpaugh North (Solar)

132, Alpaugh 50 (Solar)

133, White River (Solar)

134, White River West (Solar)

135, Pixley Biogas

136, Harvest Power (Wind)

Project Number, Name

68, Special Use Permit No. PSP 10-055

69, Lerda-Goni Farms Dairy

70, Goshen

71, Rancho Sierra

72, Earlimart

73, Visalia General Plan Update

74, Southeast Area Plan

75, Yokohl Ranch Project Area

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Project Number, Name

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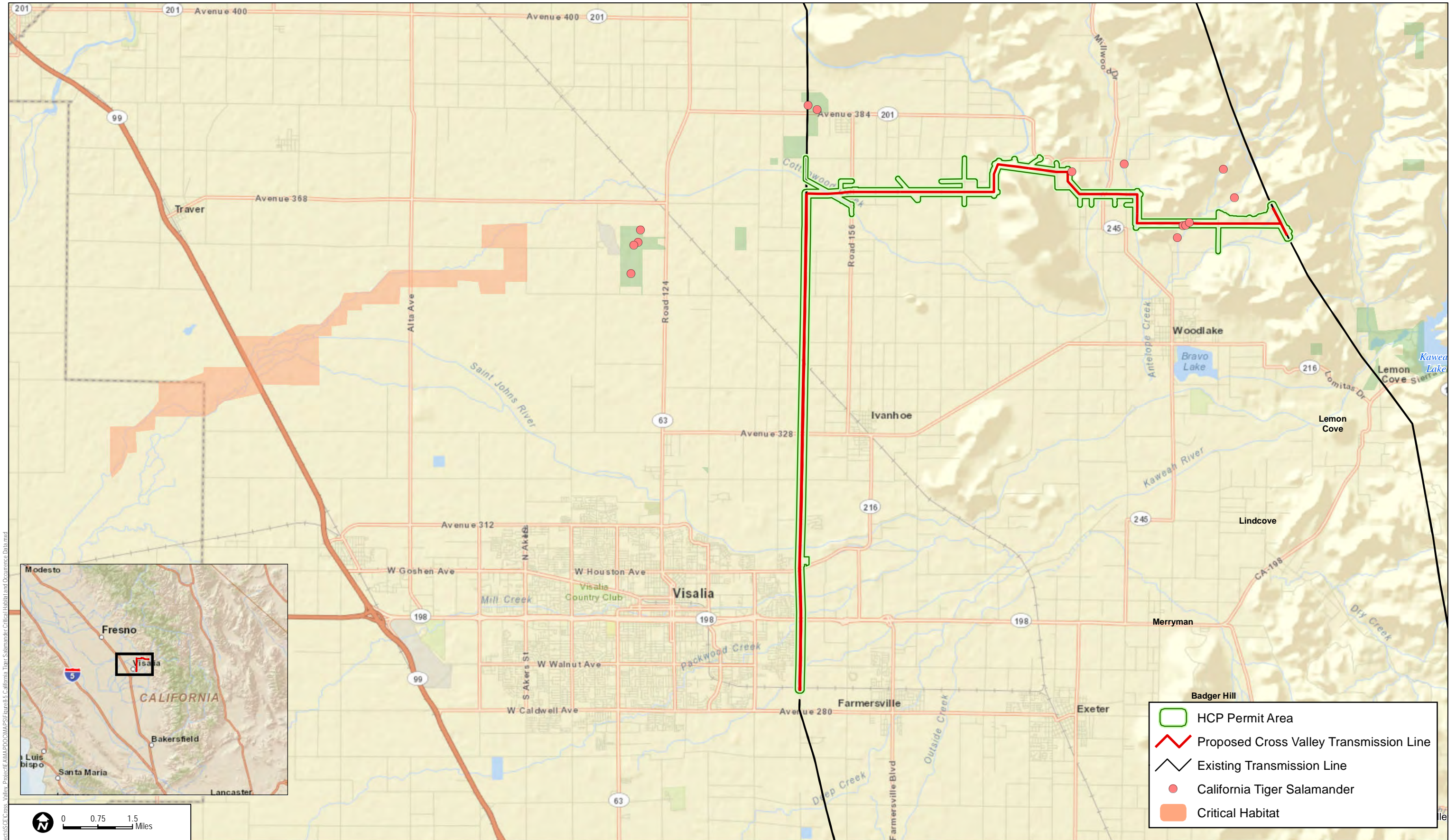
112, Big Creek Rebuild

113, Visalia Future Class I Bike Projects

114, Tulare County Future Class II Bike Projects

115, Pena</

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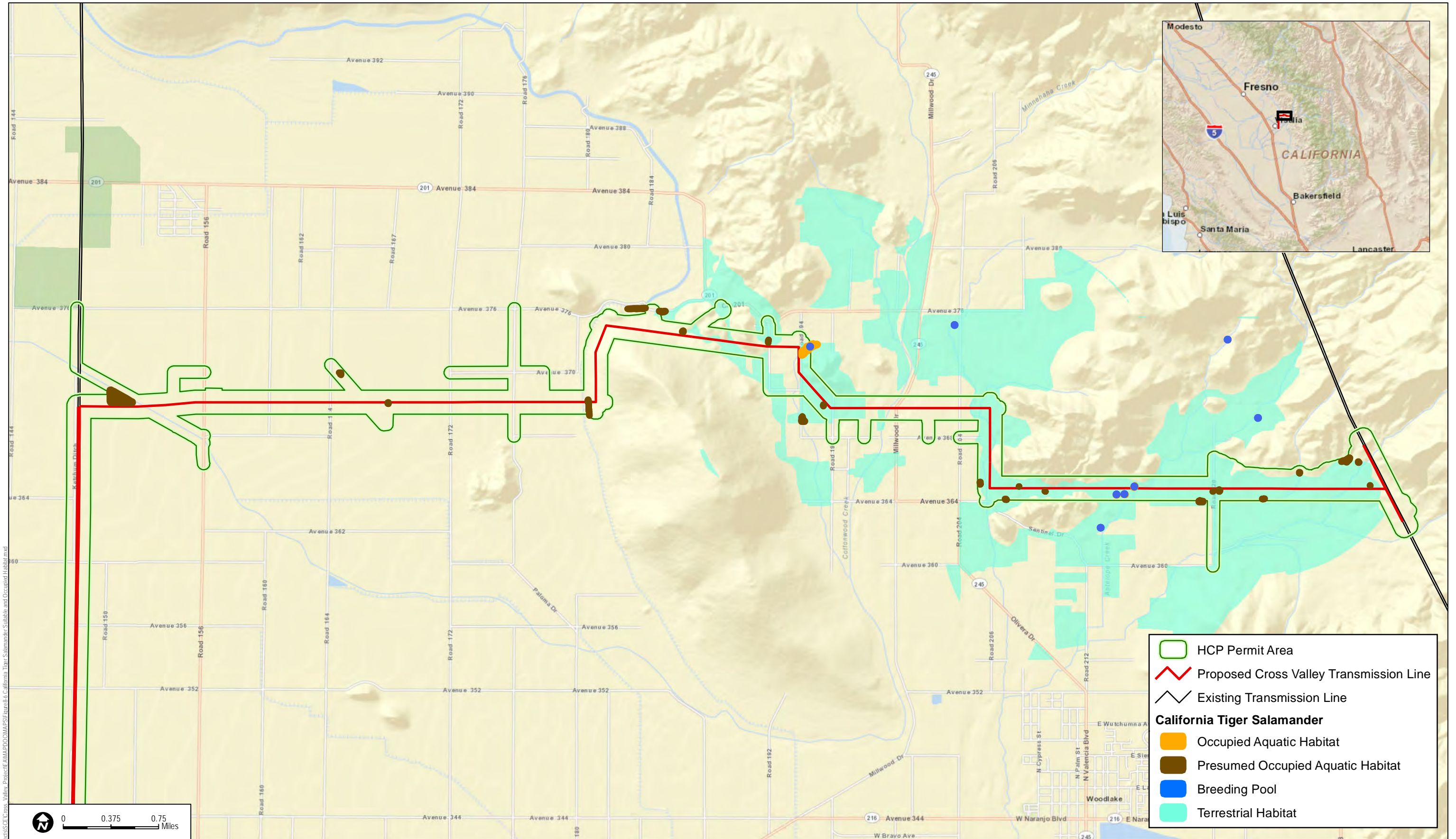


SOURCE: SCE 2012 & 2013, ESRI Data 2010, CNDDB 2013, USFWS 2013

FIGURE 8-5

California Tiger Salamander Critical Habitat and Occurrence Data

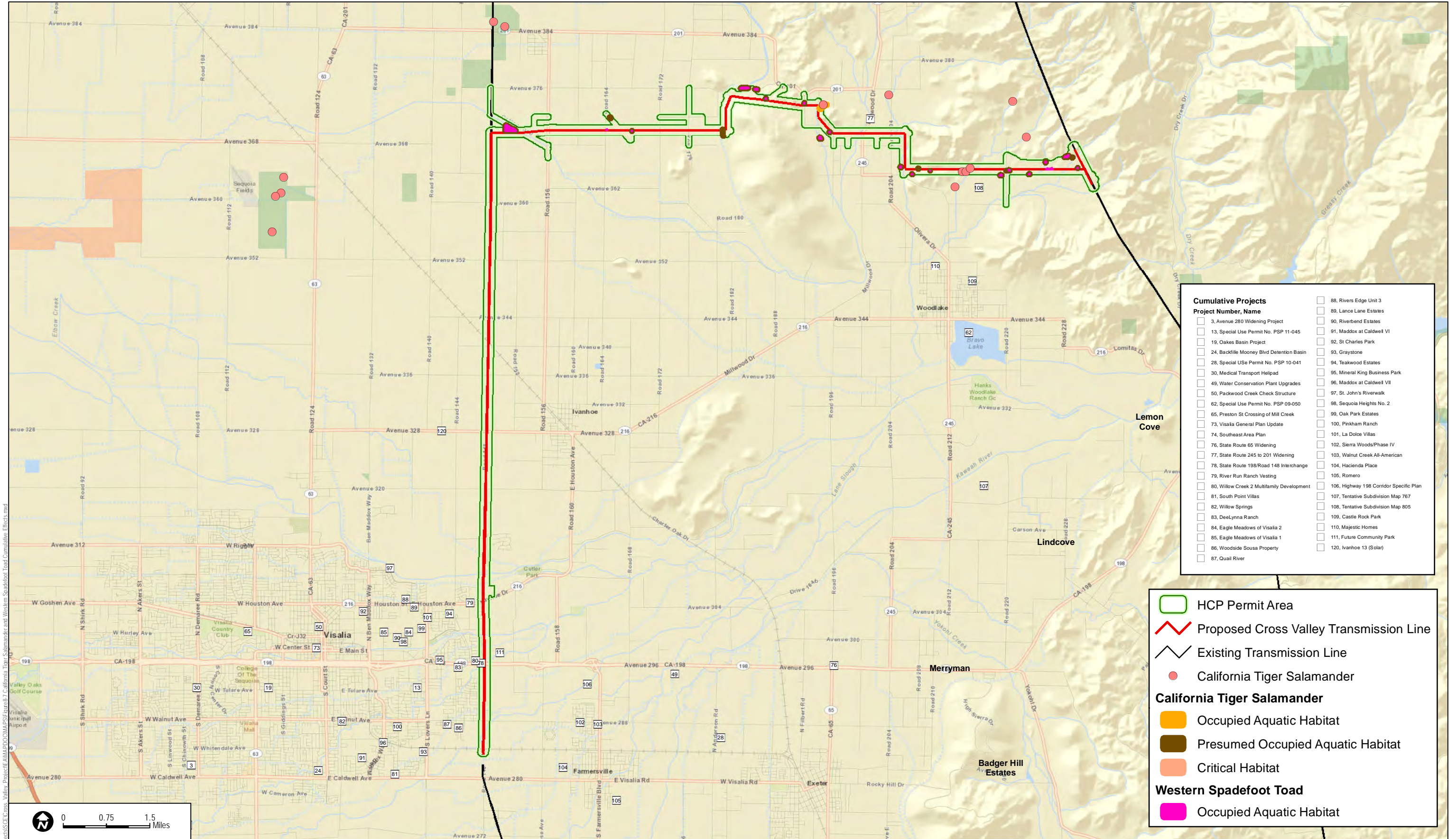
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SOURCE: SCE 2012 & 2013, CNDDDB 2013, USFWS 2013, ESRI Online

FIGURE 8-6
California Tiger Salamander Suitable and Occupied Habitat

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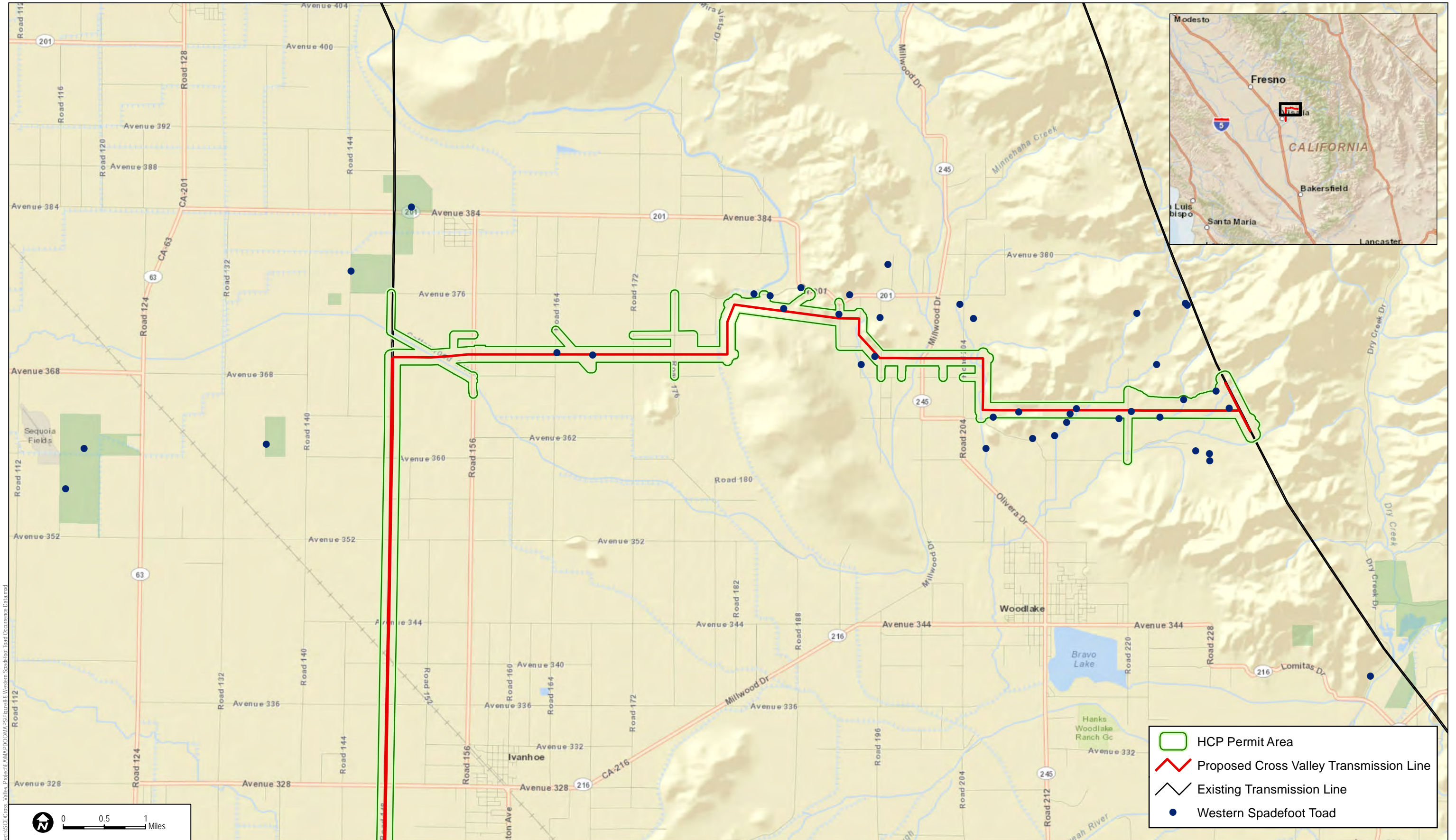
SOURCE: SCE 2011, 2012 2013, CNDDB 2013, USFWS 2013, ESRI Online

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CROSS VALLEY TRANSMISSION LINE HABITAT CONSERVATION PLAN ENVIRONMENTAL ASSESSMENT

FIGURE 8-7
California Tiger Salamander and Western Spadefoot Toad Cumulative Effects

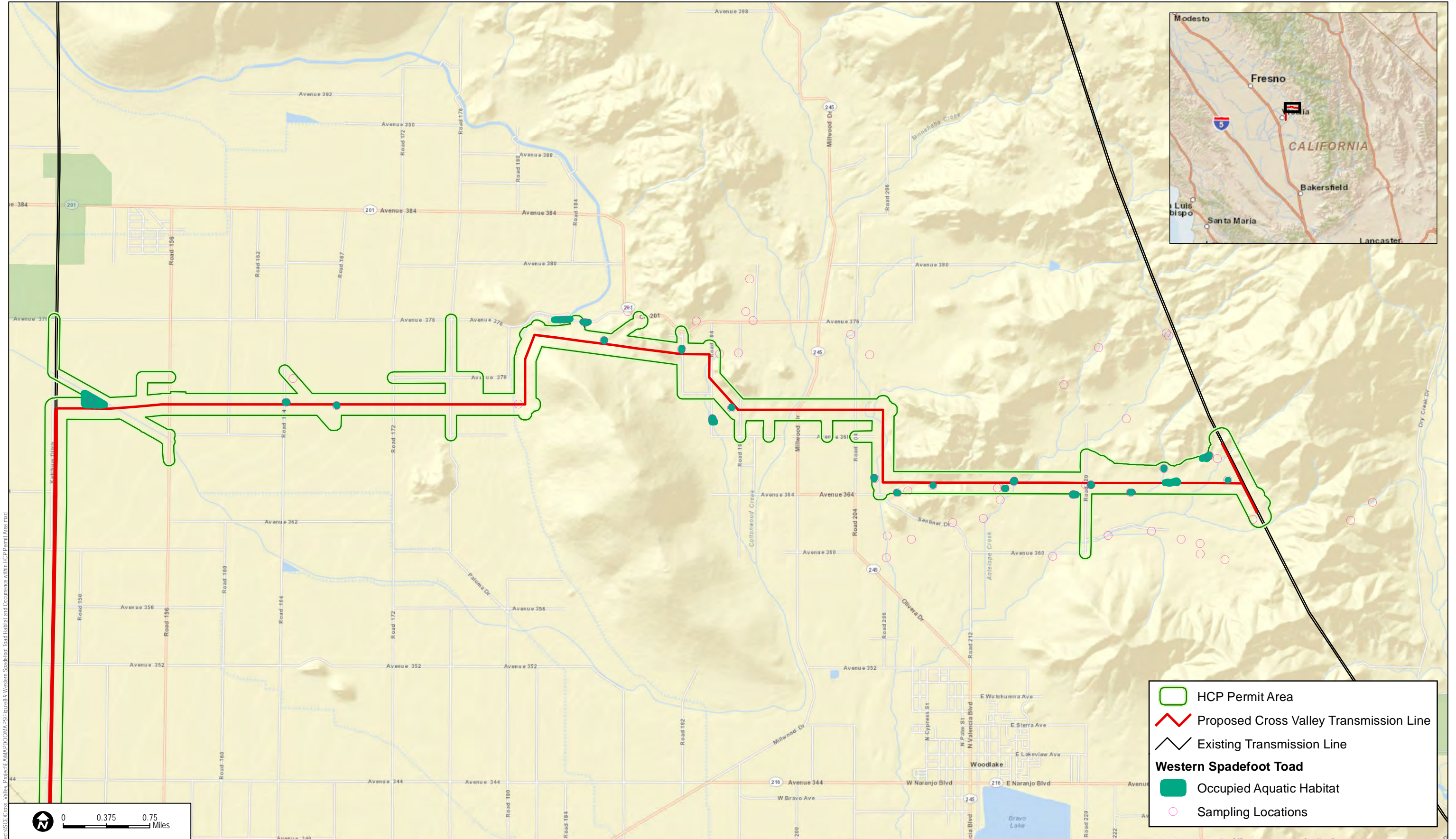
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SOURCE: SCE 2013, CNDDB 2013, ESRI Online

FIGURE 8-8
Western Spadefoot Toad Occurrence Data

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SOURCE: SCE 2013, CNDDB 2013, ESRI Online

FIGURE 8-9

Western Spadefoot Toad Habitat and Occurrence within HCP Permit Area

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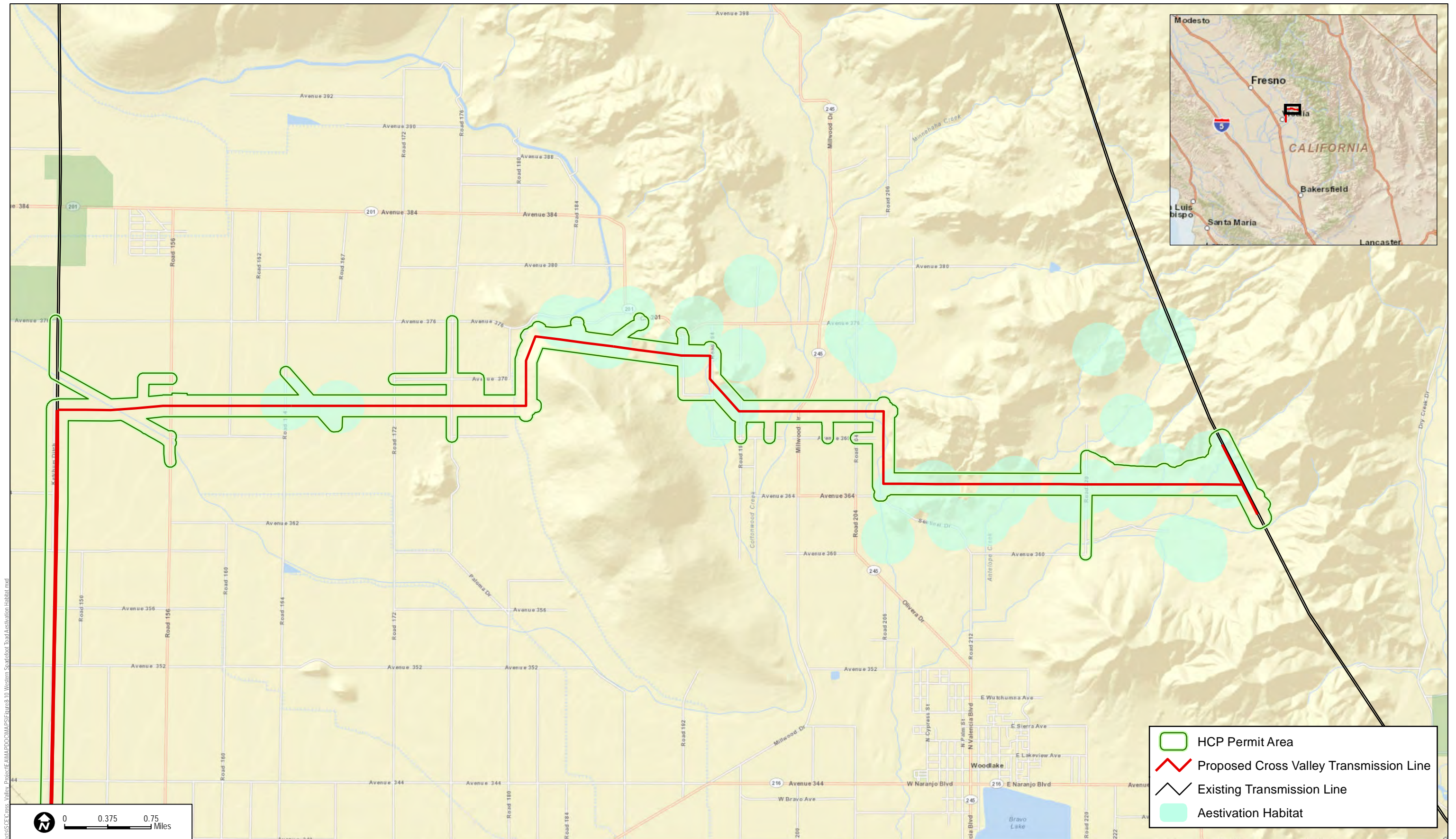
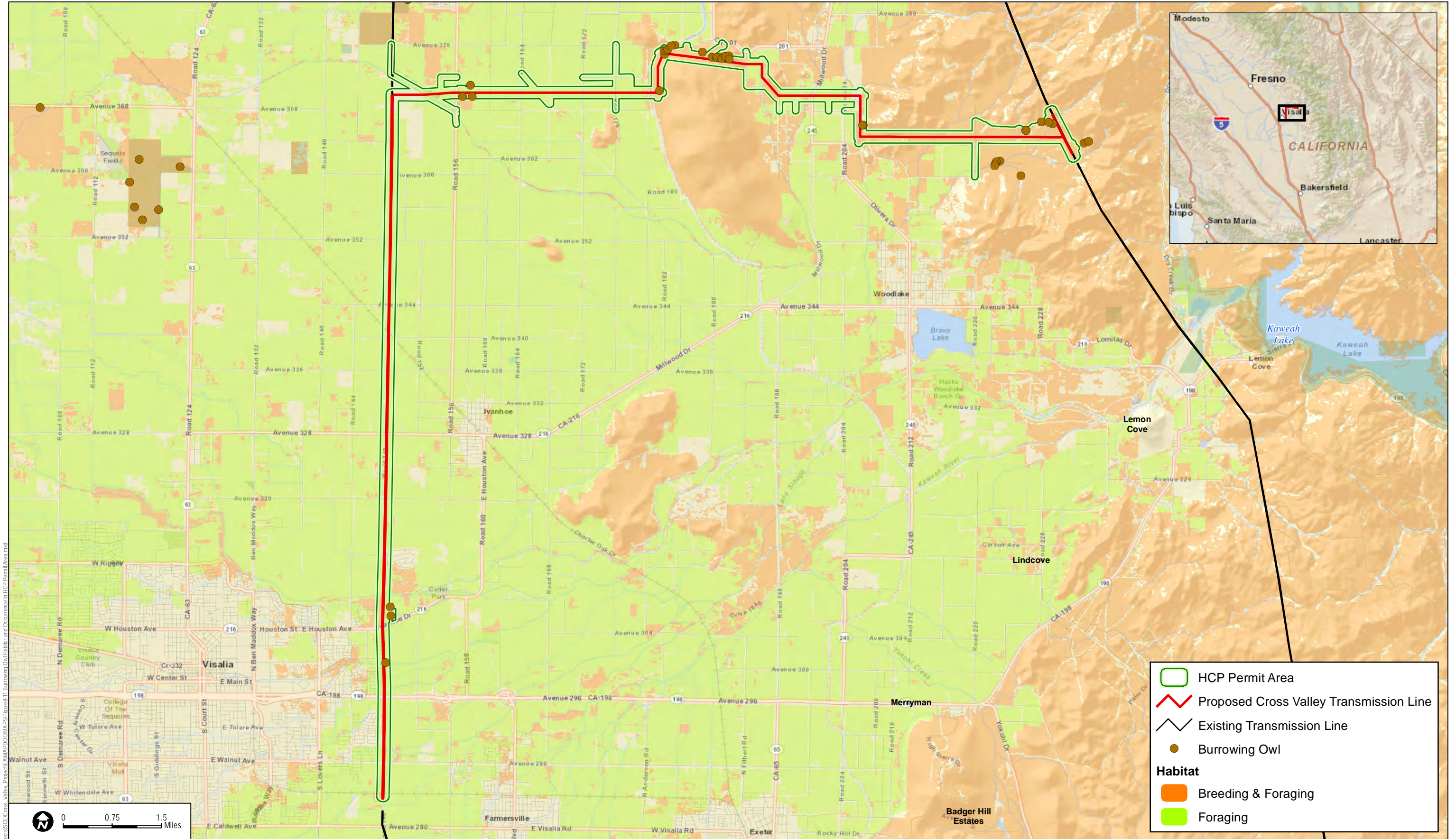


FIGURE 8-10
Western Spadefoot Toad Aestivation Habitat

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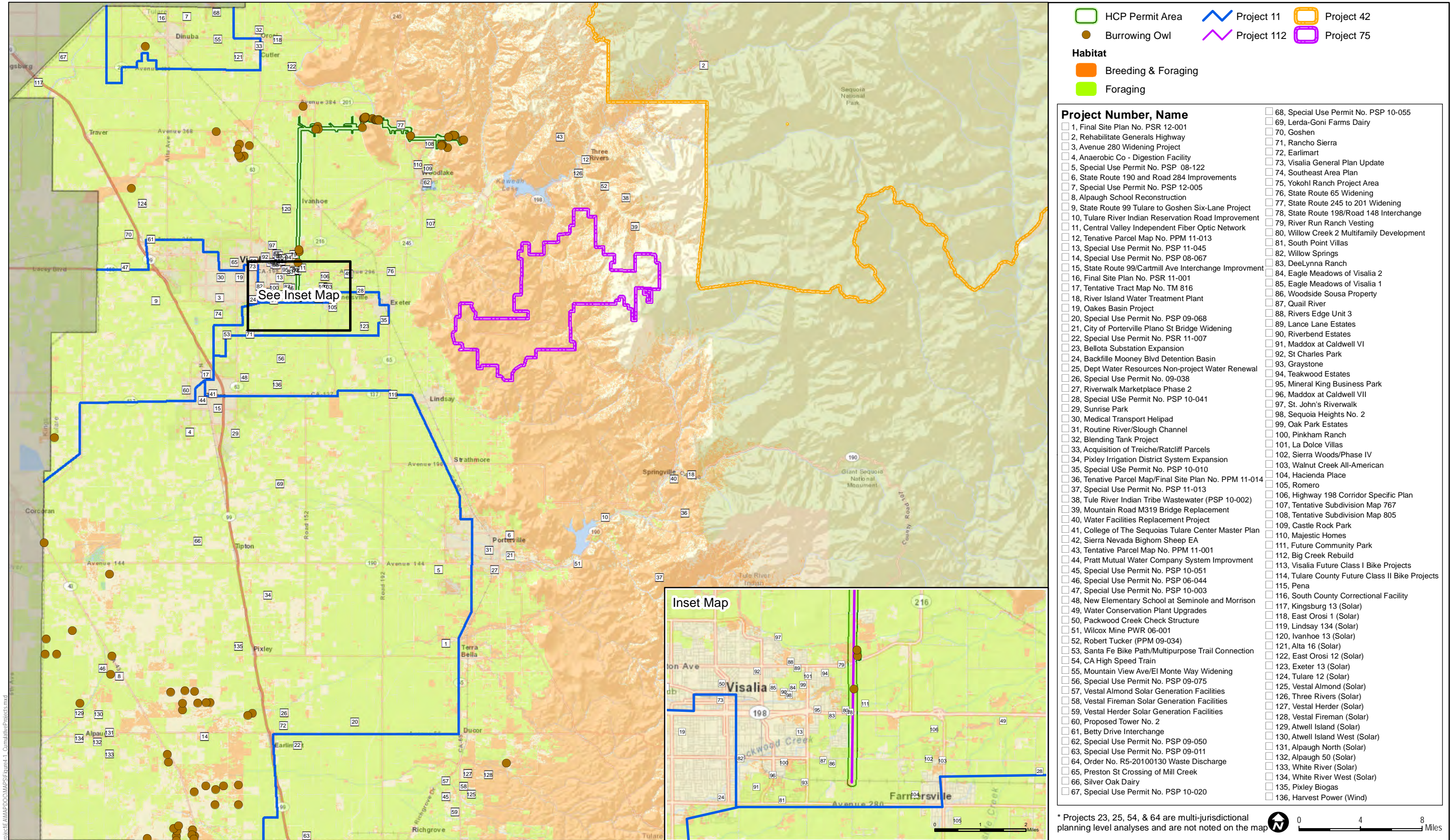


SOURCE: SCE 2013, CA GAP 2008, CNDDB 2013, , ESRI Online

FIGURE 8-11

Burrowing Owl Habitat and Occurrence in HCP Permit Area

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SOURCE: SCE 2013, Tulare County 2011, CA GAP 2008, , ESRI Online

* Projects 23, 25, 54, & 64 are multi-jurisdictional planning level analyses and are not noted on the map

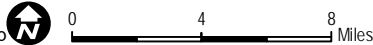
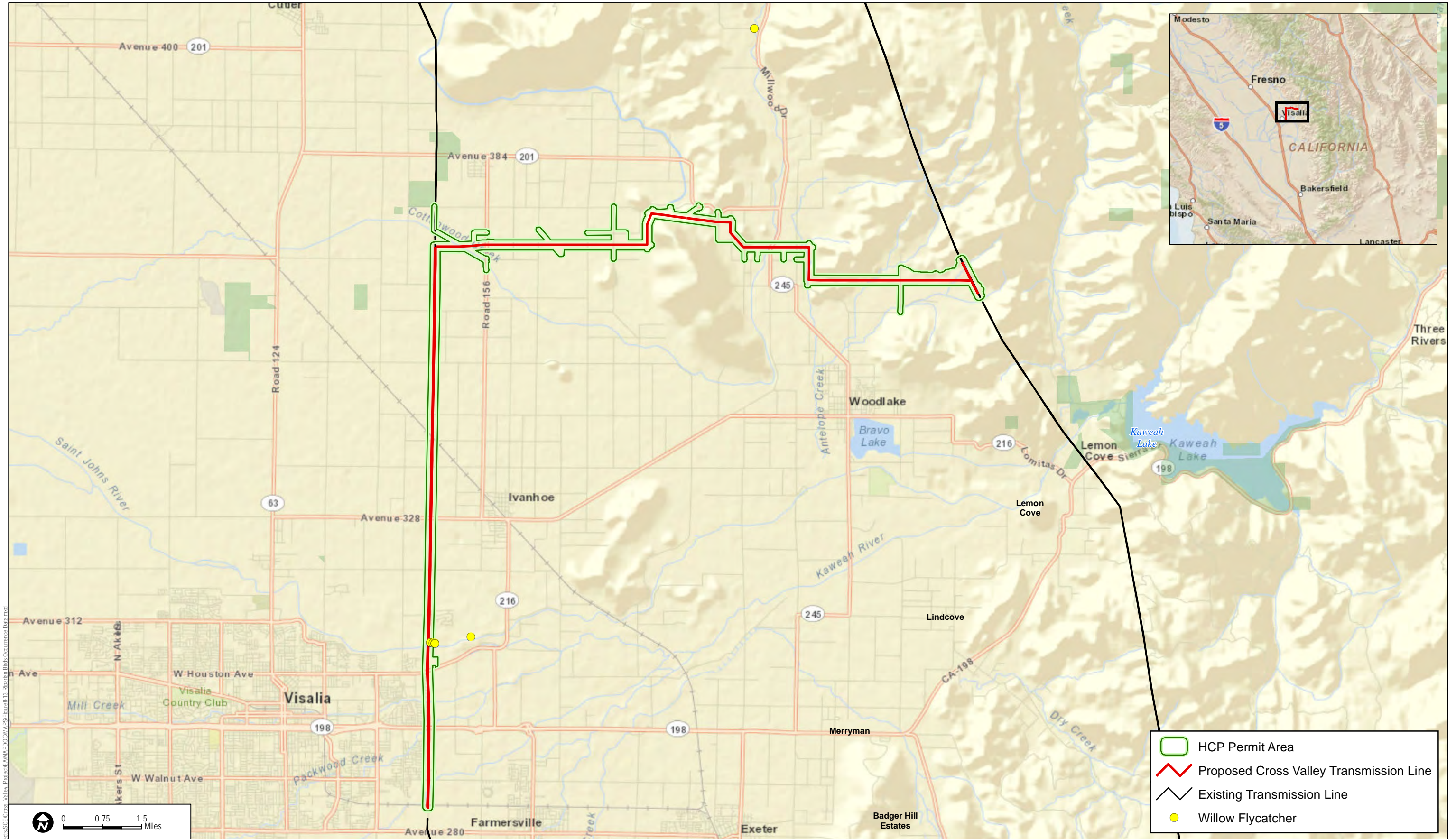


FIGURE 8-12
Burrowing Owl Cumulative Effects

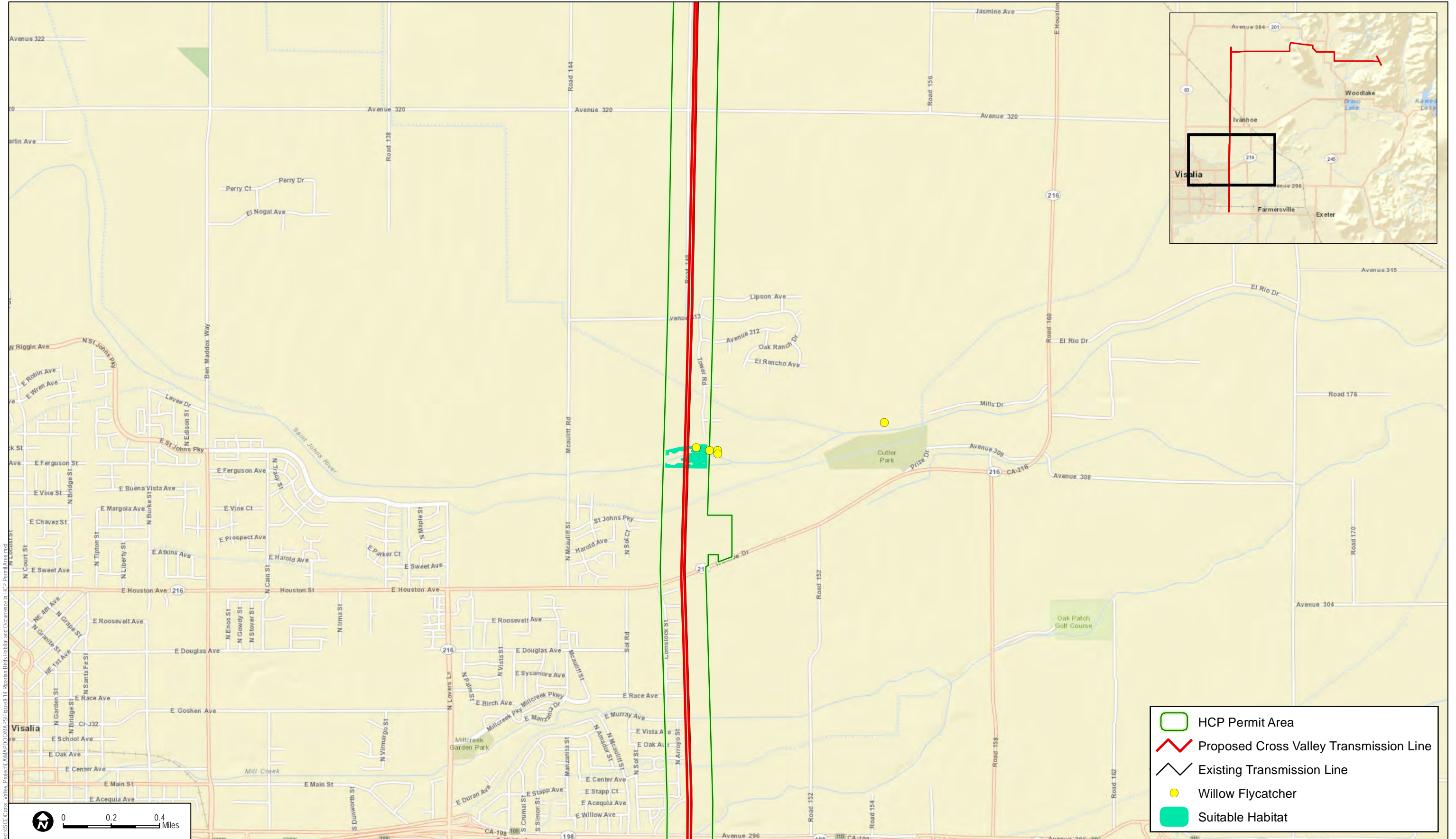
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SOURCE: SCE 2013, CNDDB 2013, ESRI Online

FIGURE 8-13
Riparian Birds Occurrence Data

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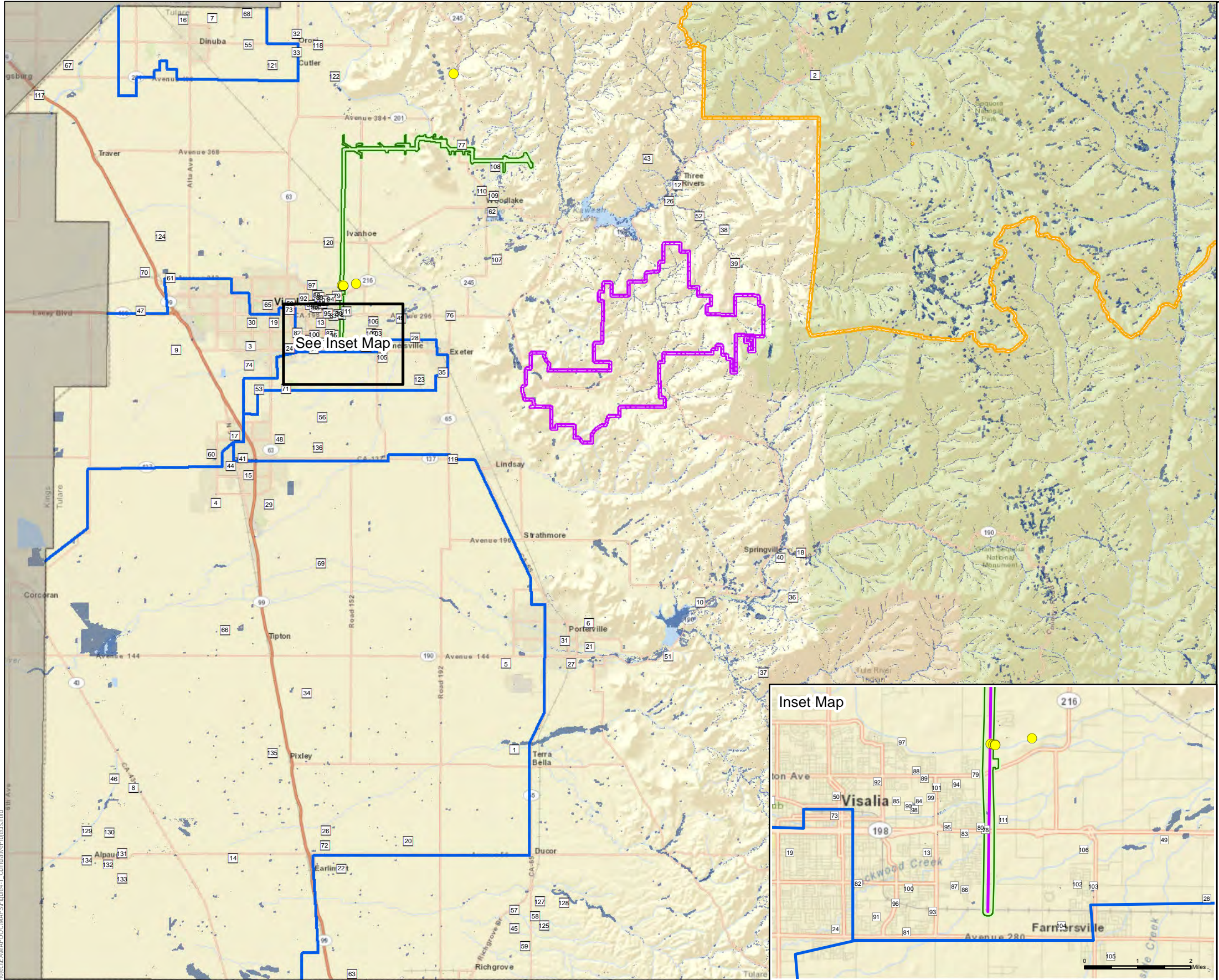


SOURCE: SCE 2013, CNDDB 2013, ESRI Online

FIGURE 8-14

Riparian Birds Habitat and Occurrence in HCP Permit Area

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HCP Permit Area

Willow Flycatcher

Riparian Habitat

Project 11

Project 112

Project 42

Project 75

Project Number, Name

1, Final Site Plan No. PSR 12-001

2, Rehabilitate Generals Highway

3, Avenue 280 Widening Project

4, Anaerobic Co - Digestion Facility

5, Special Use Permit No. PSP 08-122

6, State Route 190 and Road 284 Improvements

7, Special Use Permit No. PSP 12-005

8, Alpaugh School Reconstruction

9, State Route 99 Tulare to Goshen Six-Lane Project

10, Tulare River Indian Reservation Road Improvement

11, Central Valley Independent Fiber Optic Network

12, Tentative Parcel Map No. PPM 11-013

13, Special Use Permit No. PSP 11-045

14, Special Use Permit No. PSP 08-067

15, State Route 99/Cartmill Ave Interchange Improvment

16, Final Site Plan No. PSR 11-001

17, Tentative Tract Map No. TM 816

18, River Island Water Treatment Plant

19, Oakes Basin Project

20, Special Use Permit No. PSP 09-068

21, City of Porterville Plano St Bridge Widening

22, Special Use Permit No. PSR 11-007

23, Bellota Substation Expansion

24, Backfill Mooney Blvd Detention Basin

25, Dept Water Resources Non-project Water Renewal

26, Special Use Permit No. 09-038

27, Riverwalk Marketplace Phase 2

28, Special Use Permit No. PSP 10-041

29, Sunrise Park

30, Medical Transport Helipad

31, Routine River/Slough Channel

32, Blending Tank Project

33, Acquisition of Treiche/Ratcliff Parcels

34, Pixley Irrigation District System Expansion

35, Special Use Permit No. PSP 10-010

36, Tentative Parcel Map/Final Site Plan No. PPM 11-014

37, Special Use Permit No. PSP 11-013

38, Tule River Indian Tribe Wastewater (PSP 10-002)

39, Mountain Road M319 Bridge Replacement

40, Water Facilities Replacement Project

41, College of The Sequoias Tulare Center Master Plan

42, Sierra Nevada Bighorn Sheep EA

43, Tentative Parcel Map No. PPM 11-001

44, Pratt Mutual Water Company System Improvment

45, Special Use Permit No. PSP 10-051

46, Special Use Permit No. PSP 06-044

47, Special Use Permit No. PSP 10-003

48, New Elementary School at Seminole and Morrison

49, Water Conservation Plant Upgrades

50, Packwood Creek Check Structure

51, Wilcox Mine PWR 06-001

52, Robert Tucker (PPM 09-034)

53, Santa Fe Bike Path/Multipurpose Trail Connection

54, CA High Speed Train

55, Mountain View Ave/El Monte Way Widening

56, Special Use Permit No. PSP 09-075

57, Vestal Almond Solar Generation Facilities

58, Vestal Fireman Solar Generation Facilities

59, Vestal Herder Solar Generation Facilities

60, Proposed Tower No. 2

61, Betty Drive Interchange

62, Special Use Permit No. PSP 09-050

63, Special Use Permit No. PSP 09-011

64, Order No. R5-20100130 Waste Discharge

65, Preston St Crossing of Mill Creek

66, Silver Oak Dairy

67, Special Use Permit No. PSP 10-020

68, Special Use Permit No. PSP 10-055

69, Lerda-Goni Farms Dairy

70, Goshen

71, Rancho Sierra

72, Earlimart

73, Visalia General Plan Update

74, Southeast Area Plan

75, Yokohl Ranch Project Area

76, State Route 65 Widening

77, State Route 245 to 201 Widening

78, State Route 198/Road 148 Interchange

79, River Run Ranch Vesting

80, Willow Creek 2 Multifamily Development

81, South Point Villas

82, Willow Springs

83, DeelYnna Ranch

84, Eagle Meadows of Visalia 2

85, Eagle Meadows of Visalia 1

86, Woodside Sousa Property

87, Quail River

88, Rivers Edge Unit 3

89, Lance Lane Estates

90, Riverbend Estates

91, Maddox at Caldwell VI

92, St Charles Park

93, Graystone

94, Teakwood Estates

95, Mineral King Business Park

96, Maddox at Caldwell VII

97, St. John's Riverwalk

98, Sequoia Heights No. 2

99, Oak Park Estates

100, Pinkham Ranch

101, La Dolce Villas

102, Sierra Woods/Phase IV

103, Walnut Creek All-American

104, Hacienda Place

105, Romero

106, Highway 198 Corridor Specific Plan

107, Tentative Subdivision Map 767

108, Tentative Subdivision Map 805

109, Castle Rock Park

110, Majestic Homes

111, Future Community Park

112, Big Creek Rebuild

113, Visalia Future Class I Bike Projects

114, Tulare County Future Class II Bike Projects

115, Pena

116, South County Correctional Facility

117, Kingsburg 13 (Solar)

118, East Orosi 1 (Solar)

119, Lindsay 134 (Solar)

120, Ivanhoe 13 (Solar)

121, Alta 16 (Solar)

122, East Orosi 12 (Solar)

123, Exeter 13 (Solar)

124, Tulare 12 (Solar)

125, Vestal Almond (Solar)

126, Three Rivers (Solar)

127, Vestal Herder (Solar)

128, Vestal Fireman (Solar)

129, Atwell Island (Solar)

130, Atwell Island West (Solar)

131, Alpaugh North (Solar)

132, Alpaugh 50 (Solar)

133, White River (Solar)

134, White River West (Solar)

135, Pixley Biogas

136, Harvest Power (Wind)

* Projects 23, 25, 54, & 64 are multi-jurisdictional planning level analyses and are not noted on the map

0

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8

Miles

SOURCE: SCE 2013, Tulare County 2011, CA GAP 2008, USFWS 2013, ESRI Online

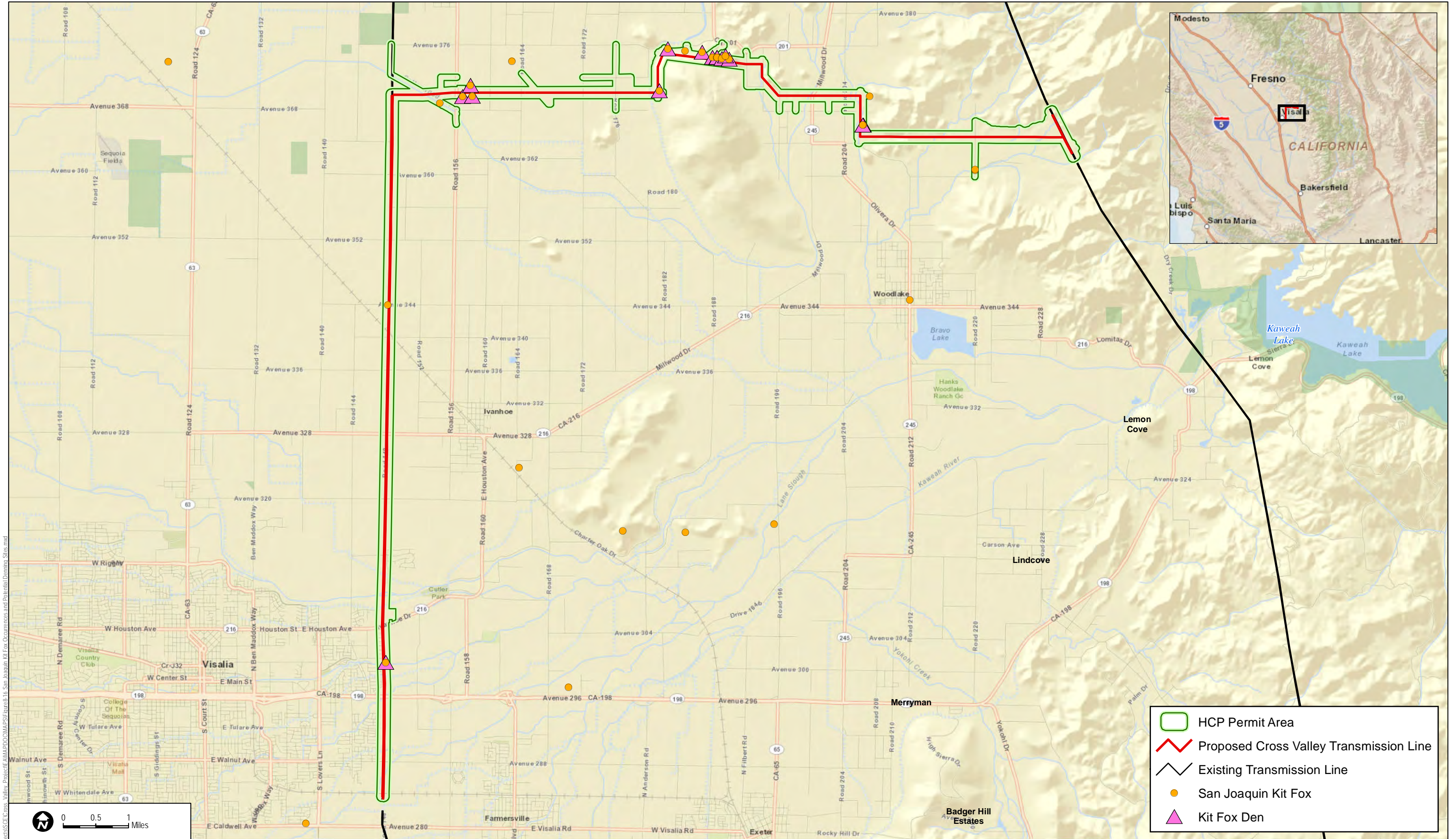
FIGURE 8-15

Riparian Birds Cumulative Effects

CROSS VALLEY TRANSMISSION LINE HABITAT CONSERVATION PLAN ENVIRONMENTAL ASSESSMENT

EA

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SOURCE: SCE 2013, CNDDB 2013, ESRI Online

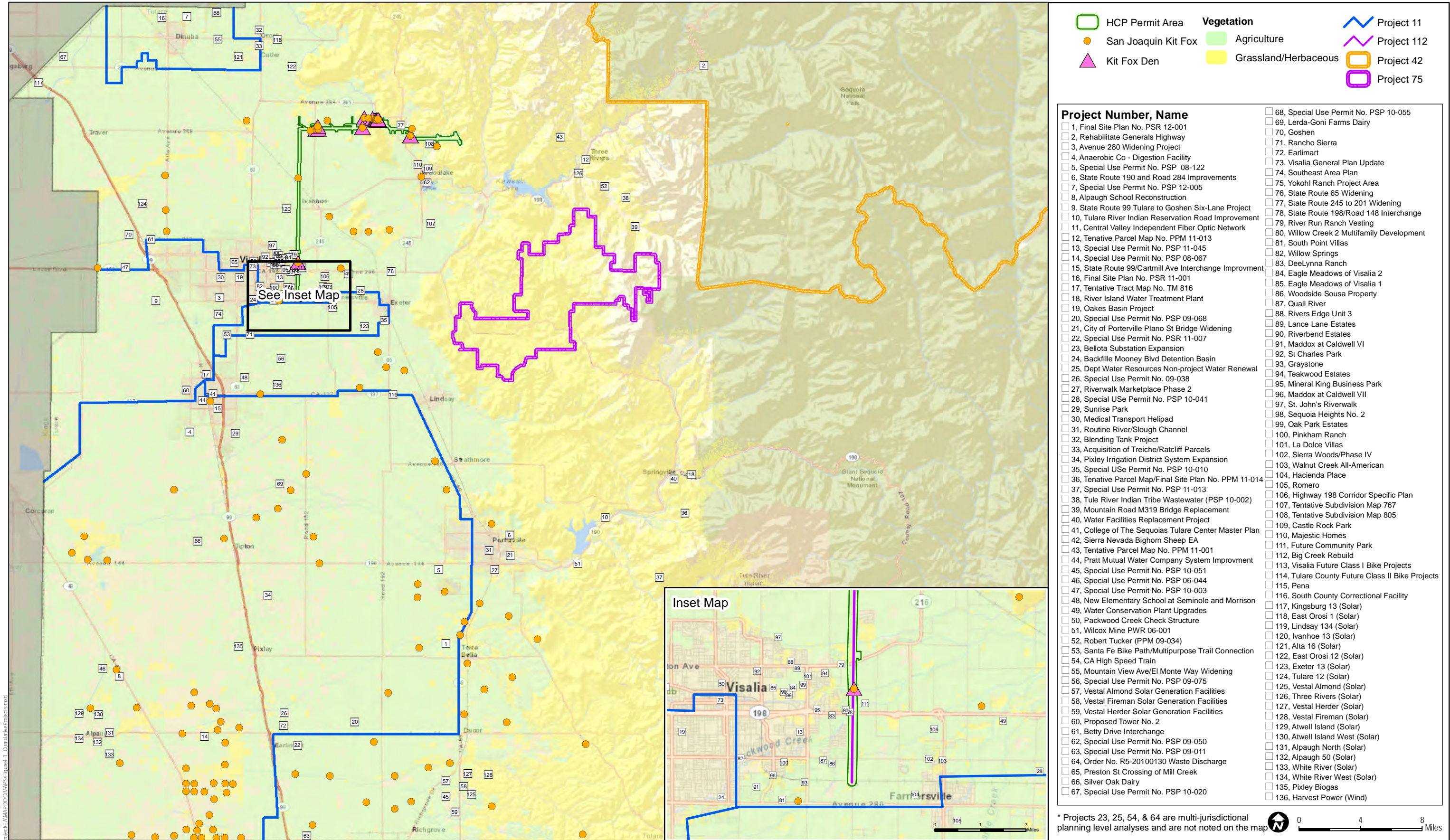
FIGURE 8-16

San Joaquin Kit Fox Occurrences and Potential Denning Sites

Path: \\vulcan.klassGISData\Projects\SCE\Cross Valley Project\EA\MapDocs\MapSheet8-16 San Joaquin Kit Fox Occurrences and Potential Denning Sites.mxd



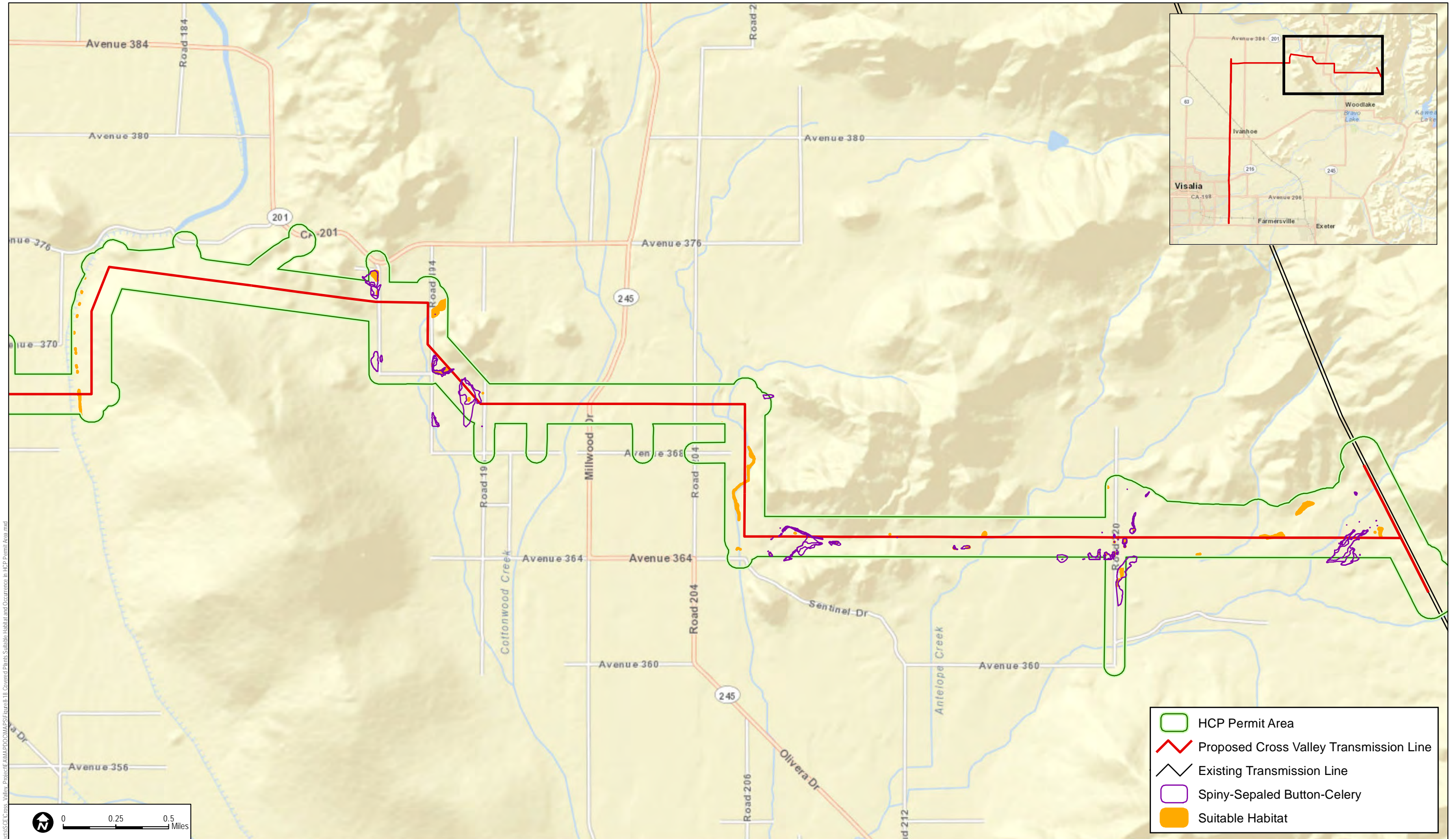
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SOURCE: SCE 2013, Tulare County 2011, CA GAP 2008, CNDDB 2013, , ESRI Online

FIGURE 8-17
San Joaquin Kit Fox Cumulative Effects

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SOURCE: SCE 2013, CNDDB 2013, ESRI Online

FIGURE 8-18

Covered Plants Suitable Habitat and Occurrence in HCP Permit Area

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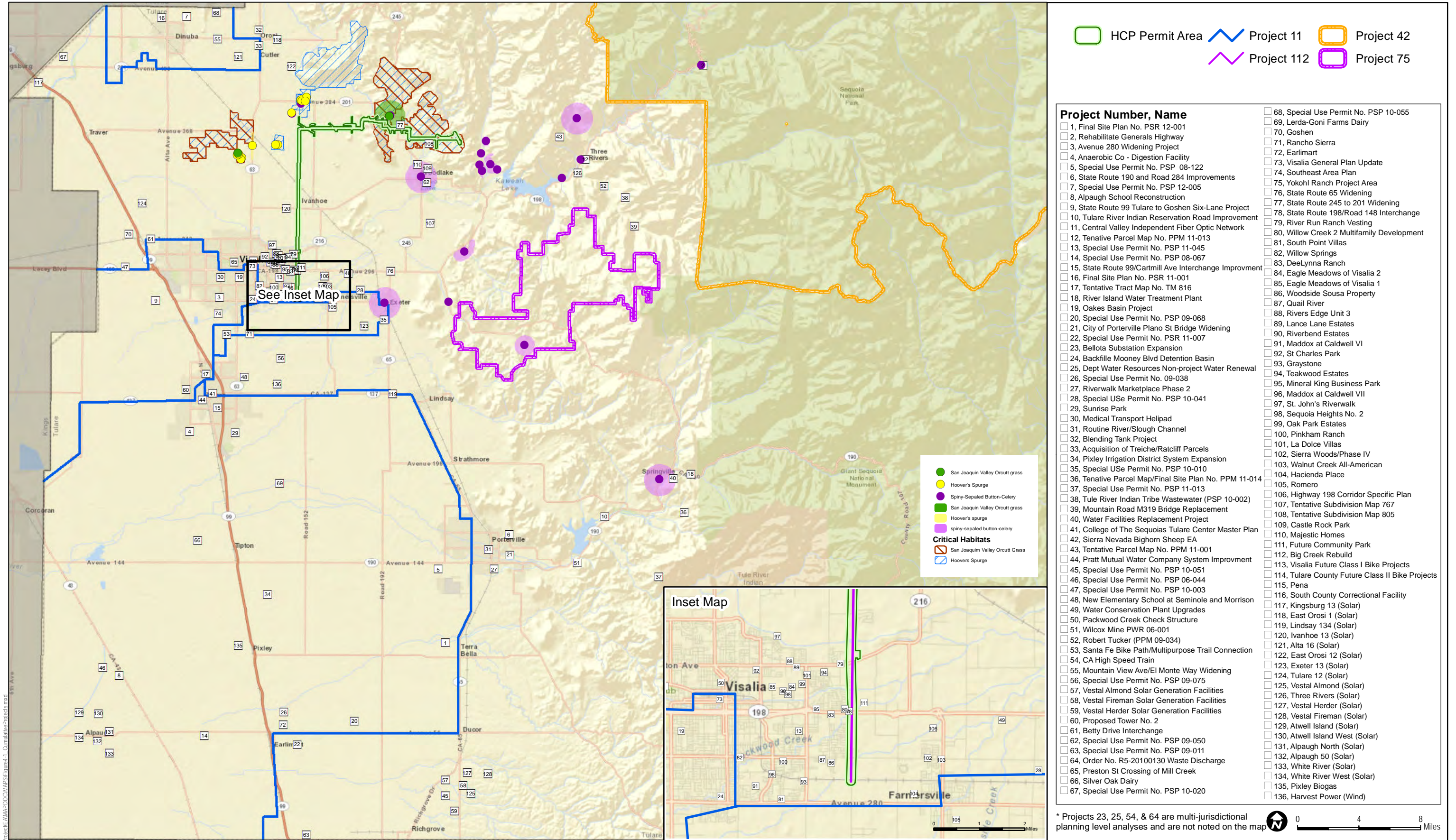
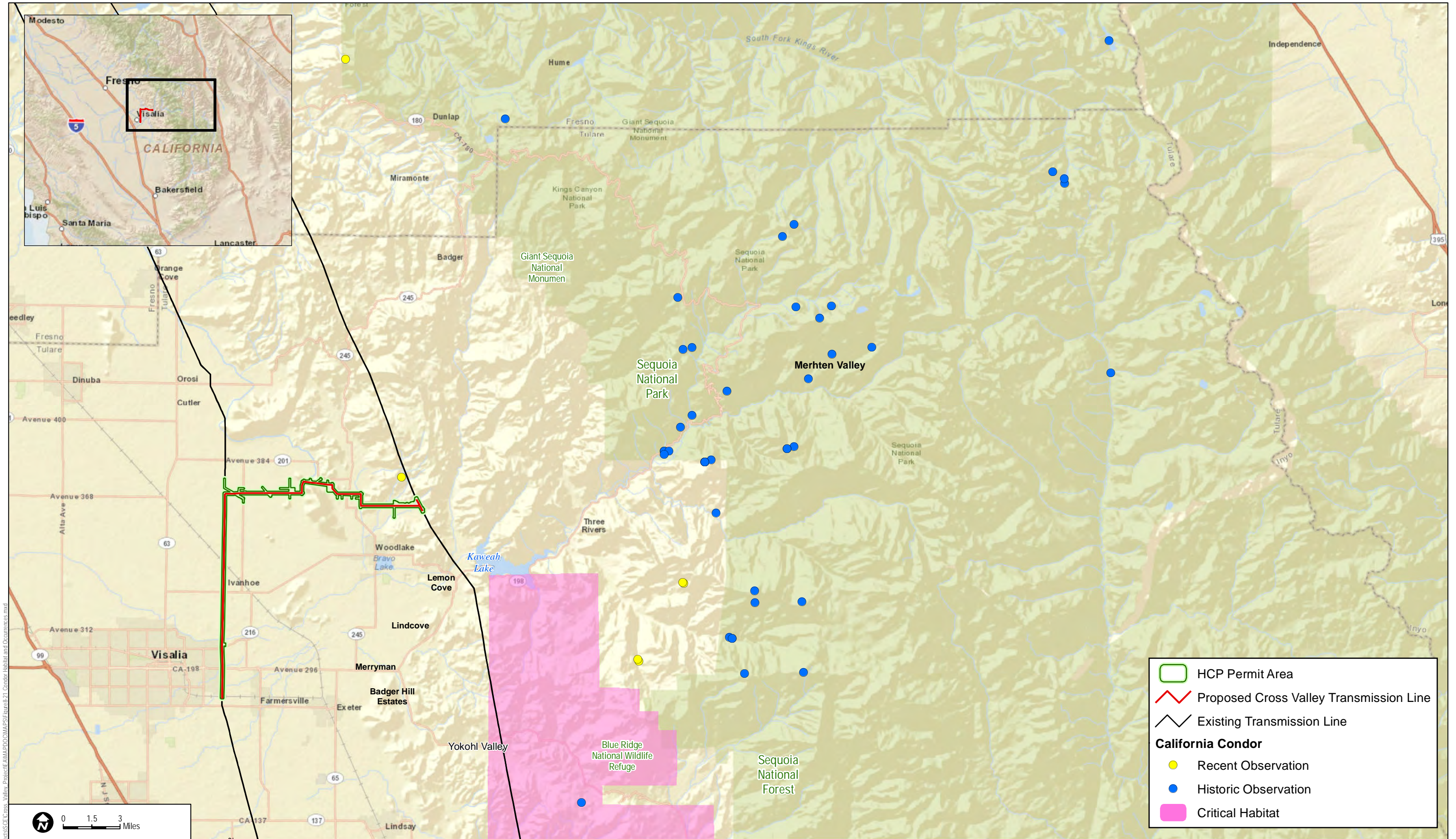


FIGURE 8-19
Covered Plants Cumulative Effects

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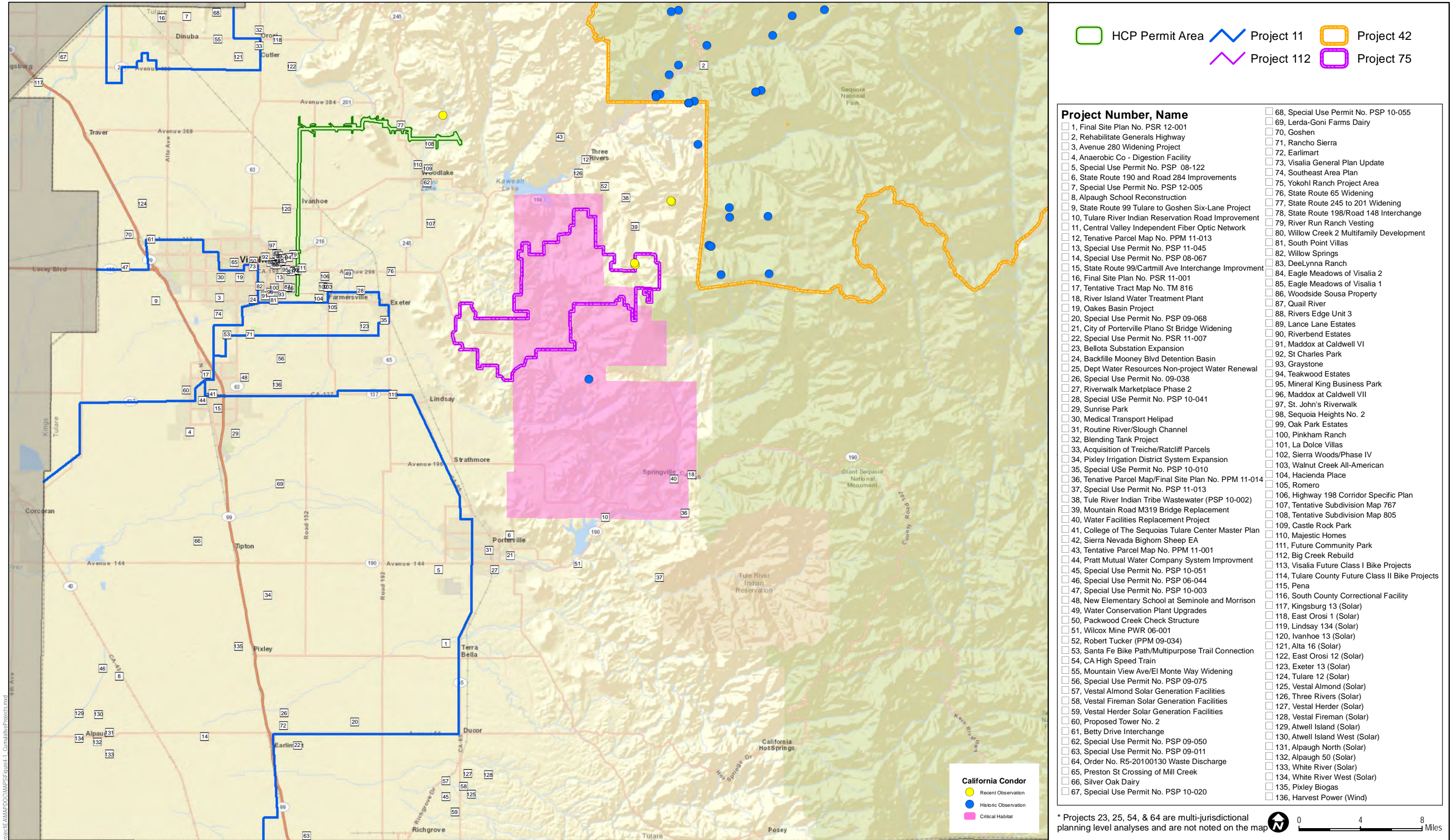
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SOURCE: SCE 2013, CNDDB 2013, ESRI Online

FIGURE 8-21
Condor Habitat and Occurrences

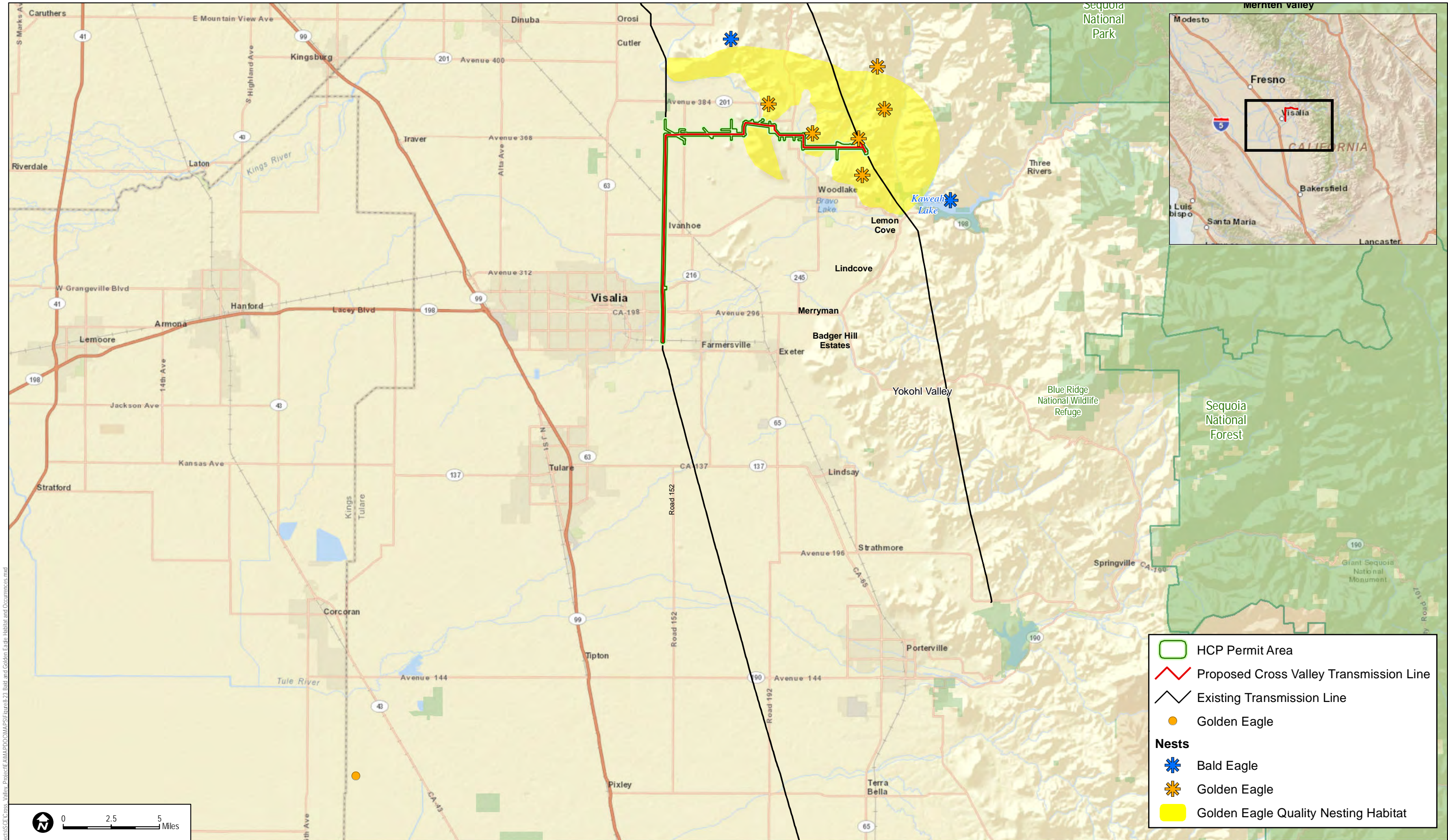
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SOURCE: SCE 2013, Tulare County 2011, CNDDB 2013, , ESRI Online

FIGURE 8-22
Condor Cumulative Effects

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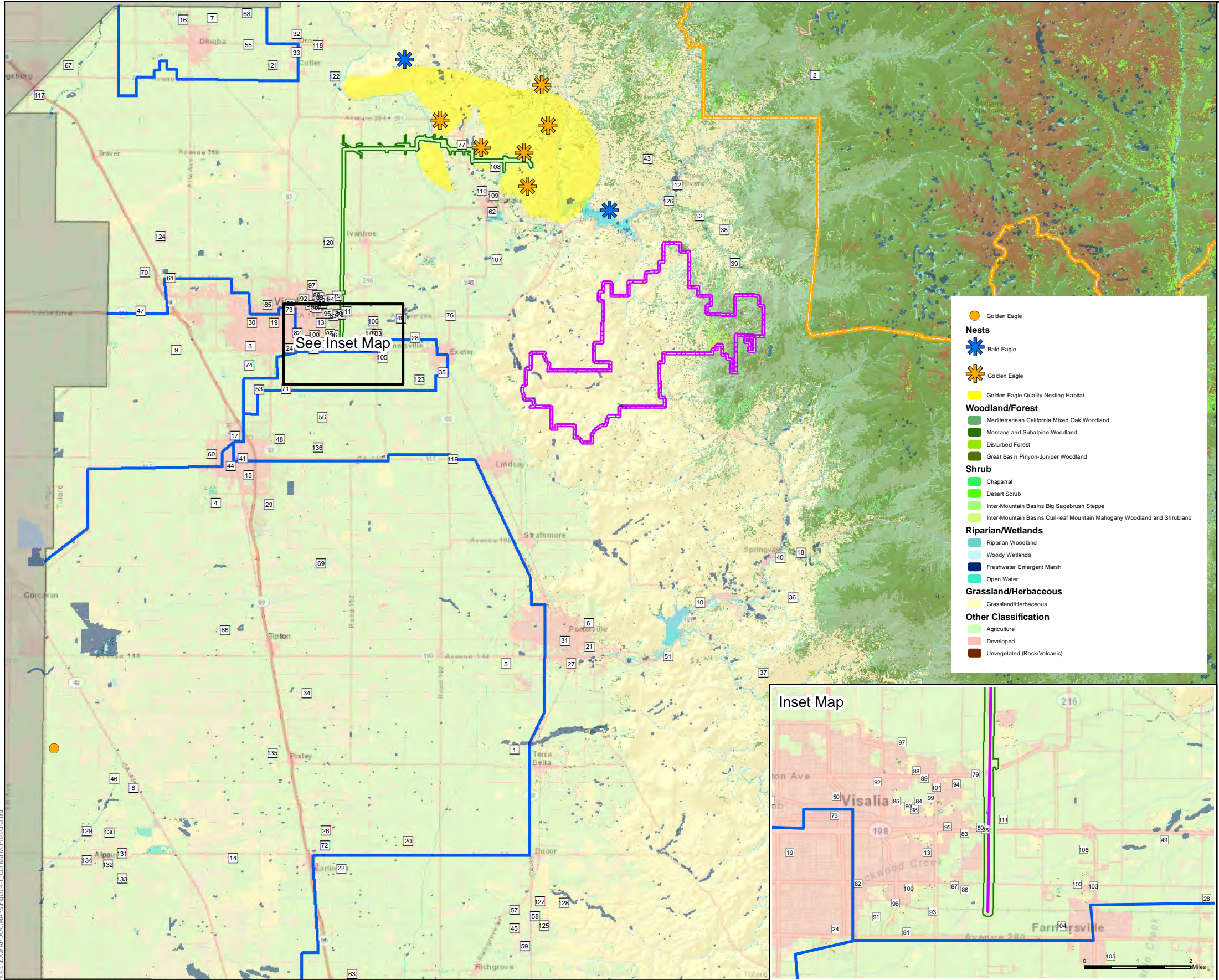


SOURCE: SCE 2013, CNDDB 2013, ESRI Online

FIGURE 8-23

Bald and Golden Eagle Habitat and Occurrences

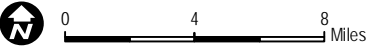
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HCP Permit Area Project 11 Project 42 Project 112 Project 75

Project Number, Name	
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<input type="checkbox"/> 2, Rehabilitate Generals Highway	<input type="checkbox"/> 69, Lerda-Goni Farms Dairy
<input type="checkbox"/> 3, Avenue 280 Widening Project	<input type="checkbox"/> 70, Goshen
<input type="checkbox"/> 4, Anaerobic Co - Digestion Facility	<input type="checkbox"/> 71, Rancho Sierra
<input type="checkbox"/> 5, Special Use Permit No. PSP 08-122	<input type="checkbox"/> 72, Earlimart
<input type="checkbox"/> 6, State Route 190 and Road 284 Improvements	<input type="checkbox"/> 73, Visalia General Plan Update
<input type="checkbox"/> 7, Special Use Permit No. PSP 12-005	<input type="checkbox"/> 74, Southeast Area Plan
<input type="checkbox"/> 8, Alpaugh School Reconstruction	<input type="checkbox"/> 75, Yokohl Ranch Project Area
<input type="checkbox"/> 9, State Route 99 Tulare to Goshen Six-Lane Project	<input type="checkbox"/> 76, State Route 65 Widening
<input type="checkbox"/> 10, Tulare River Indian Reservation Road Improvement	<input type="checkbox"/> 77, State Route 245 to 201 Widening
<input type="checkbox"/> 11, Central Valley Independent Fiber Optic Network	<input type="checkbox"/> 78, State Route 198/Road 148 Interchange
<input type="checkbox"/> 12, Tentative Parcel Map No. PPM 11-013	<input type="checkbox"/> 79, River Run Ranch Vesting
<input type="checkbox"/> 13, Special Use Permit No. PSP 11-045	<input type="checkbox"/> 80, Willow Creek 2 Multifamily Development
<input type="checkbox"/> 14, Special Use Permit No. PSP 08-067	<input type="checkbox"/> 81, South Point Villas
<input type="checkbox"/> 15, State Route 99/Cartmill Ave Interchange Improvment	<input type="checkbox"/> 82, Willow Springs
<input type="checkbox"/> 16, Final Site Plan No. PSR 11-001	<input type="checkbox"/> 83, DeelLynna Ranch
<input type="checkbox"/> 17, Tentative Tract Map No. TM 816	<input type="checkbox"/> 84, Eagle Meadows of Visalia 2
<input type="checkbox"/> 18, River Island Water Treatment Plant	<input type="checkbox"/> 85, Eagle Meadows of Visalia 1
<input type="checkbox"/> 19, Oakes Basin Project	<input type="checkbox"/> 86, Woodside Sousa Property
<input type="checkbox"/> 20, Special Use Permit No. PSP 09-068	<input type="checkbox"/> 87, Quail River
<input type="checkbox"/> 21, City of Porterville Plano St Bridge Widening	<input type="checkbox"/> 88, Rivers Edge Unit 3
<input type="checkbox"/> 22, Special Use Permit No. PSR 11-007	<input type="checkbox"/> 89, Lance Lane Estates
<input type="checkbox"/> 23, Bellota Substation Expansion	<input type="checkbox"/> 90, Riverbend Estates
<input type="checkbox"/> 24, Backfille Mooney Blvd Detention Basin	<input type="checkbox"/> 91, Maddox at Caldwell VI
<input type="checkbox"/> 25, Dept Water Resources Non-project Water Renewal	<input type="checkbox"/> 92, St Charles Park
<input type="checkbox"/> 26, Special Use Permit No. 09-038	<input type="checkbox"/> 93, Graystone
<input type="checkbox"/> 27, Riverwalk Marketplace Phase 2	<input type="checkbox"/> 94, Teakwood Estates
<input type="checkbox"/> 28, Special Use Permit No. PSP 10-041	<input type="checkbox"/> 95, Mineral King Business Park
<input type="checkbox"/> 29, Sunrise Park	<input type="checkbox"/> 96, Maddox at Caldwell VII
<input type="checkbox"/> 30, Medical Transport Helipad	<input type="checkbox"/> 97, St. John's Riverwalk
<input type="checkbox"/> 31, Routine River/Slough Channel	<input type="checkbox"/> 98, Sequoia Heights No. 2
<input type="checkbox"/> 32, Blending Tank Project	<input type="checkbox"/> 99, Oak Park Estates
<input type="checkbox"/> 33, Acquisition of Treiche/Ratcliff Parcels	<input type="checkbox"/> 100, Pinkham Ranch
<input type="checkbox"/> 34, Pixley Irrigation District System Expansion	<input type="checkbox"/> 101, La Dolce Villas
<input type="checkbox"/> 35, Special Use Permit No. PSP 10-010	<input type="checkbox"/> 102, Sierra Woods/Phase IV
<input type="checkbox"/> 36, Tentative Parcel Map/Final Site Plan No. PPM 11-014	<input type="checkbox"/> 103, Walnut Creek All-American
<input type="checkbox"/> 37, Special Use Permit No. PSP 11-013	<input type="checkbox"/> 104, Hacienda Place
<input type="checkbox"/> 38, Tule River Indian Tribe Wastewater (PSP 10-002)	<input type="checkbox"/> 105, Romero
<input type="checkbox"/> 39, Mountain Road M319 Bridge Replacement	<input type="checkbox"/> 106, Highway 198 Corridor Specific Plan
<input type="checkbox"/> 40, Water Facilities Replacement Project	<input type="checkbox"/> 107, Tentative Subdivision Map 767
<input type="checkbox"/> 41, College of The Sequoias Tulare Center Master Plan	<input type="checkbox"/> 108, Tentative Subdivision Map 805
<input type="checkbox"/> 42, Sierra Nevada Bighorn Sheep EA	<input type="checkbox"/> 109, Castle Rock Park
<input type="checkbox"/> 43, Tentative Parcel Map No. PPM 11-001	<input type="checkbox"/> 110, Majestic Homes
<input type="checkbox"/> 44, Pratt Mutual Water Company System Improvment	<input type="checkbox"/> 111, Future Community Park
<input type="checkbox"/> 45, Special Use Permit No. PSP 10-051	<input type="checkbox"/> 112, Big Creek Rebuild
<input type="checkbox"/> 46, Special Use Permit No. PSP 06-044	<input type="checkbox"/> 113, Visalia Future Class I Bike Projects
<input type="checkbox"/> 47, Special Use Permit No. PSP 10-003	<input type="checkbox"/> 114, Tulare County Future Class II Bike Projects
<input type="checkbox"/> 48, New Elementary School at Seminole and Morrison	<input type="checkbox"/> 115, Pena
<input type="checkbox"/> 49, Water Conservation Plant Upgrades	<input type="checkbox"/> 116, South County Correctional Facility
<input type="checkbox"/> 50, Packwood Creek Check Structure	<input type="checkbox"/> 117, Kingsburg 13 (Solar)
<input type="checkbox"/> 51, Wilcox Mine PWR 06-001	<input type="checkbox"/> 118, East Orosi 1 (Solar)
<input type="checkbox"/> 52, Robert Tucker (PPM 09-034)	<input type="checkbox"/> 119, Lindsay 134 (Solar)
<input type="checkbox"/> 53, Santa Fe Bike Path/Multipurpose Trail Connection	<input type="checkbox"/> 120, Ivanhoe 13 (Solar)
<input type="checkbox"/> 54, CA High Speed Train	<input type="checkbox"/> 121, Alta 16 (Solar)
<input type="checkbox"/> 55, Mountain View Ave/El Monte Way Widening	<input type="checkbox"/> 122, East Orosi 12 (Solar)
<input type="checkbox"/> 56, Special Use Permit No. PSP 09-075	<input type="checkbox"/> 123, Exeter 13 (Solar)
<input type="checkbox"/> 57, Vestal Almond Solar Generation Facilities	<input type="checkbox"/> 124, Tulare 12 (Solar)
<input type="checkbox"/> 58, Vestal Fireman Solar Generation Facilities	<input type="checkbox"/> 125, Vestal Almond (Solar)
<input type="checkbox"/> 59, Vestal Herder Solar Generation Facilities	<input type="checkbox"/> 126, Three Rivers (Solar)
<input type="checkbox"/> 60, Proposed Tower No. 2	<input type="checkbox"/> 127, Vestal Herder (Solar)
<input type="checkbox"/> 61, Betty Drive Interchange	<input type="checkbox"/> 128, Vestal Fireman (Solar)
<input type="checkbox"/> 62, Special Use Permit No. PSP 09-050	<input type="checkbox"/> 129, Atwell Island (Solar)
<input type="checkbox"/> 63, Special Use Permit No. PSP 09-011	<input type="checkbox"/> 130, Atwell Island West (Solar)
<input type="checkbox"/> 64, Order No. R5-20100130 Waste Discharge	<input type="checkbox"/> 131, Alpaugh North (Solar)
<input type="checkbox"/> 65, Preston St Crossing of Mill Creek	<input type="checkbox"/> 132, Alpaugh 50 (Solar)
<input type="checkbox"/> 66, Silver Oak Dairy	<input type="checkbox"/> 133, White River (Solar)
<input type="checkbox"/> 67, Special Use Permit No. PSP 10-020	<input type="checkbox"/> 134, White River West (Solar)
	<input type="checkbox"/> 135, Pixley Biogas
	<input type="checkbox"/> 136, Harvest Power (Wind)

* Projects 23, 25, 54, & 64 are multi-jurisdictional planning level analyses and are not noted on the map

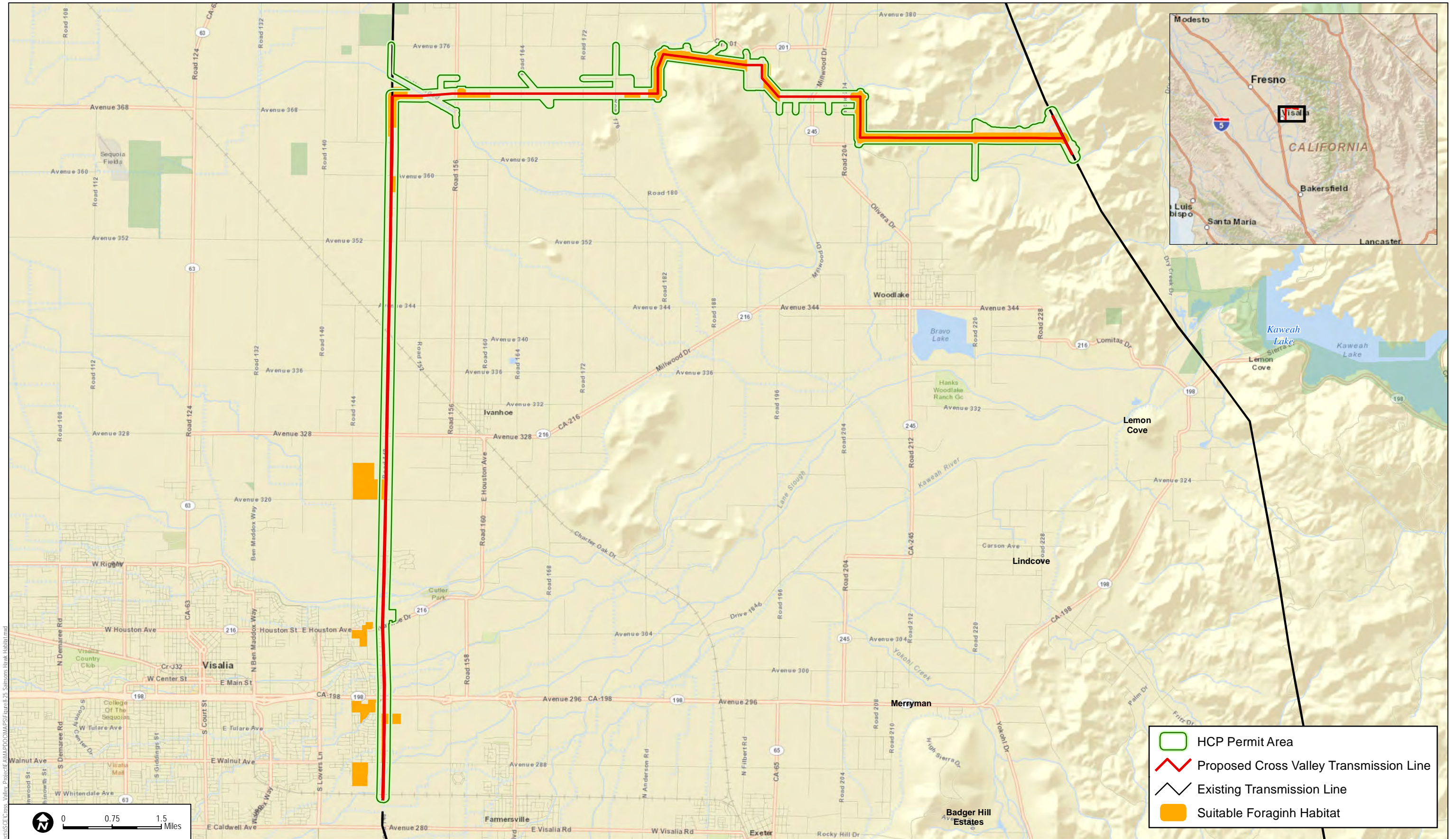


SOURCE: SCE 2013, Tulare County 2011, ESRI Online

FIGURE 8-24

Bald and Golden Eagle Cumulative Effects

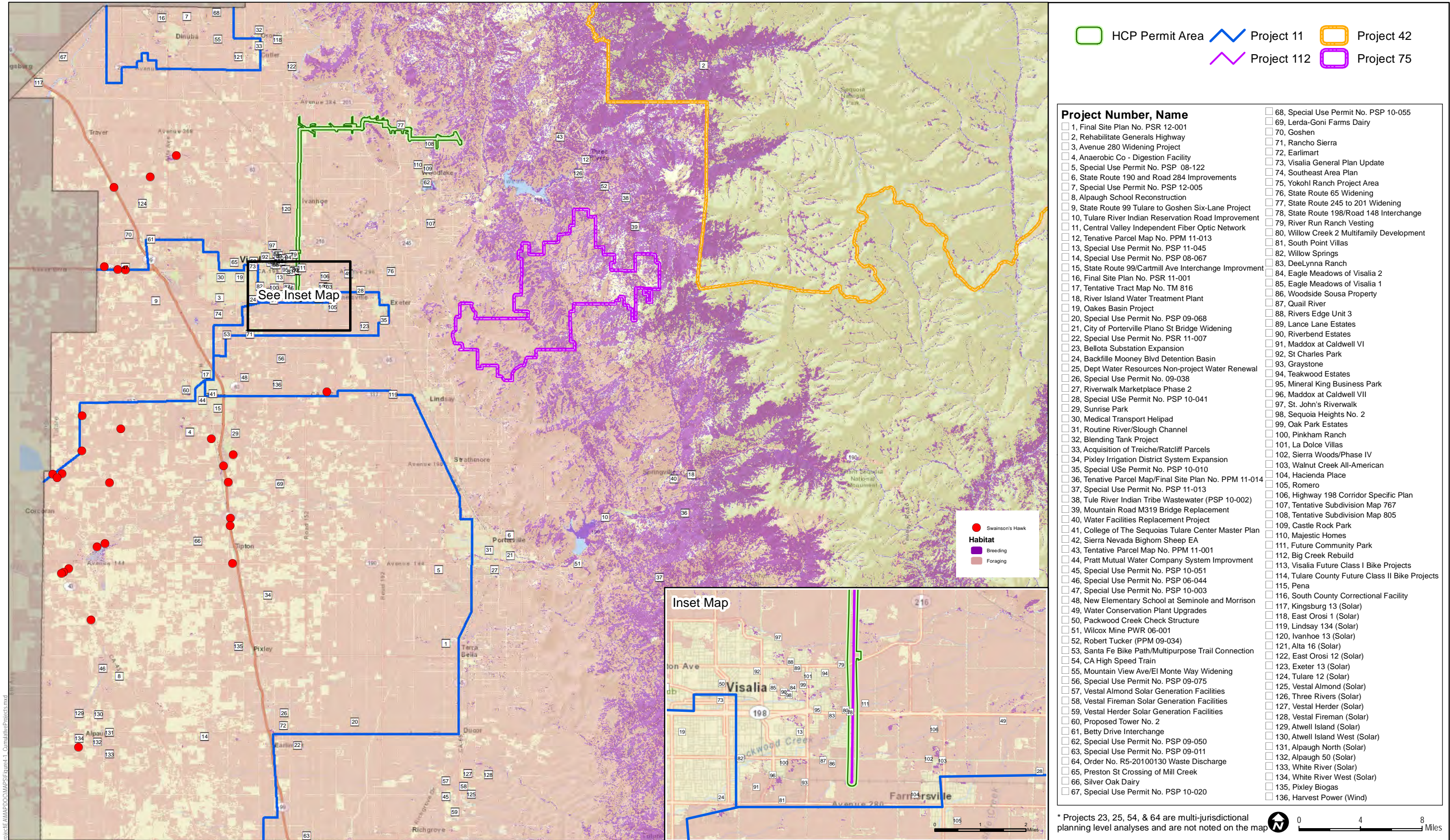
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SOURCE: SCE 2013, CNDDDB 2013, ESRI Online

FIGURE 8-25
Swainson's Hawk Habitat

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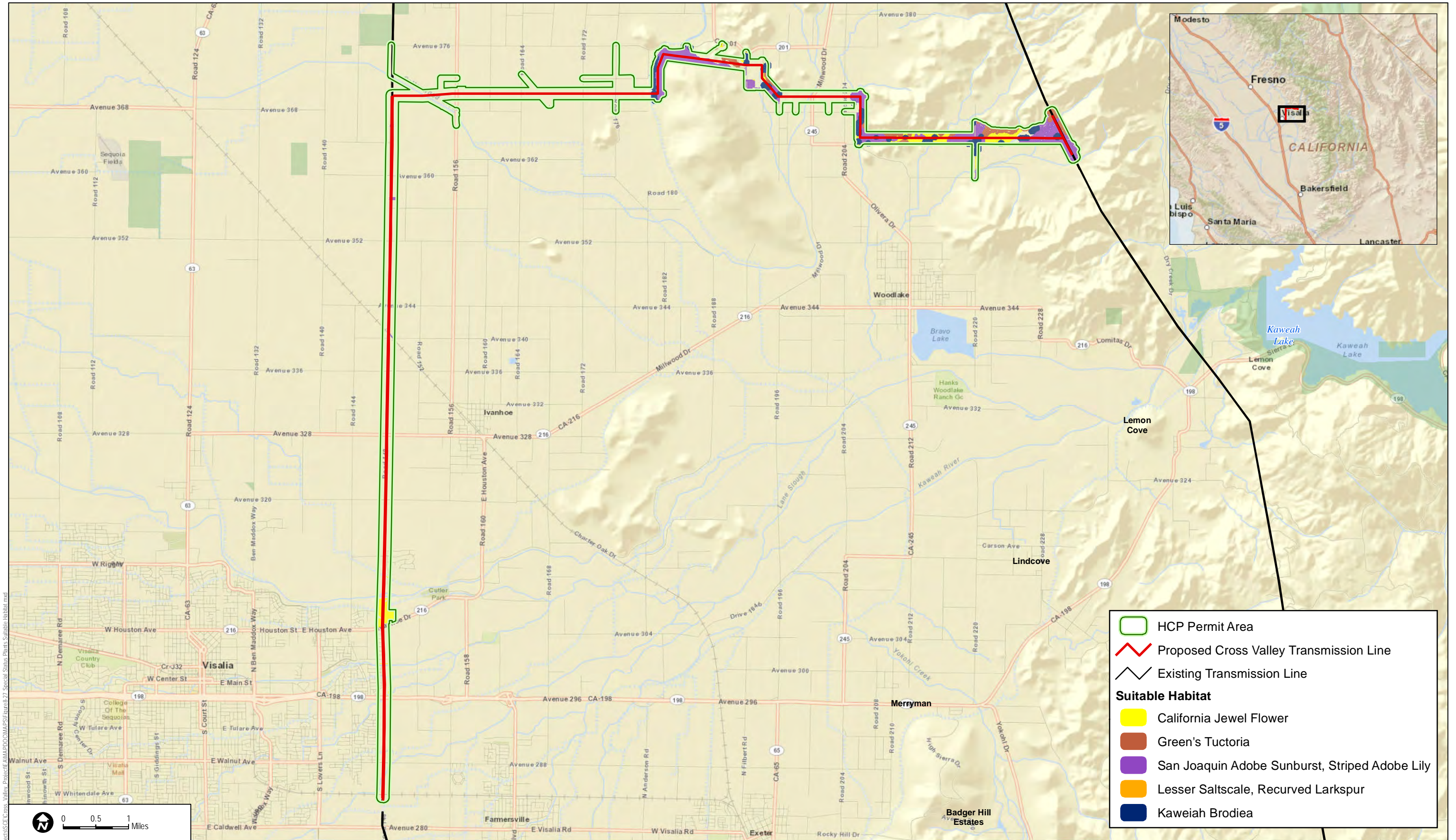


SOURCE: SCE 2012, CA GAP 2008, CNDDB 2013, ESRI Online

FIGURE 8-26

Swainson's Hawk Cumulative Effects

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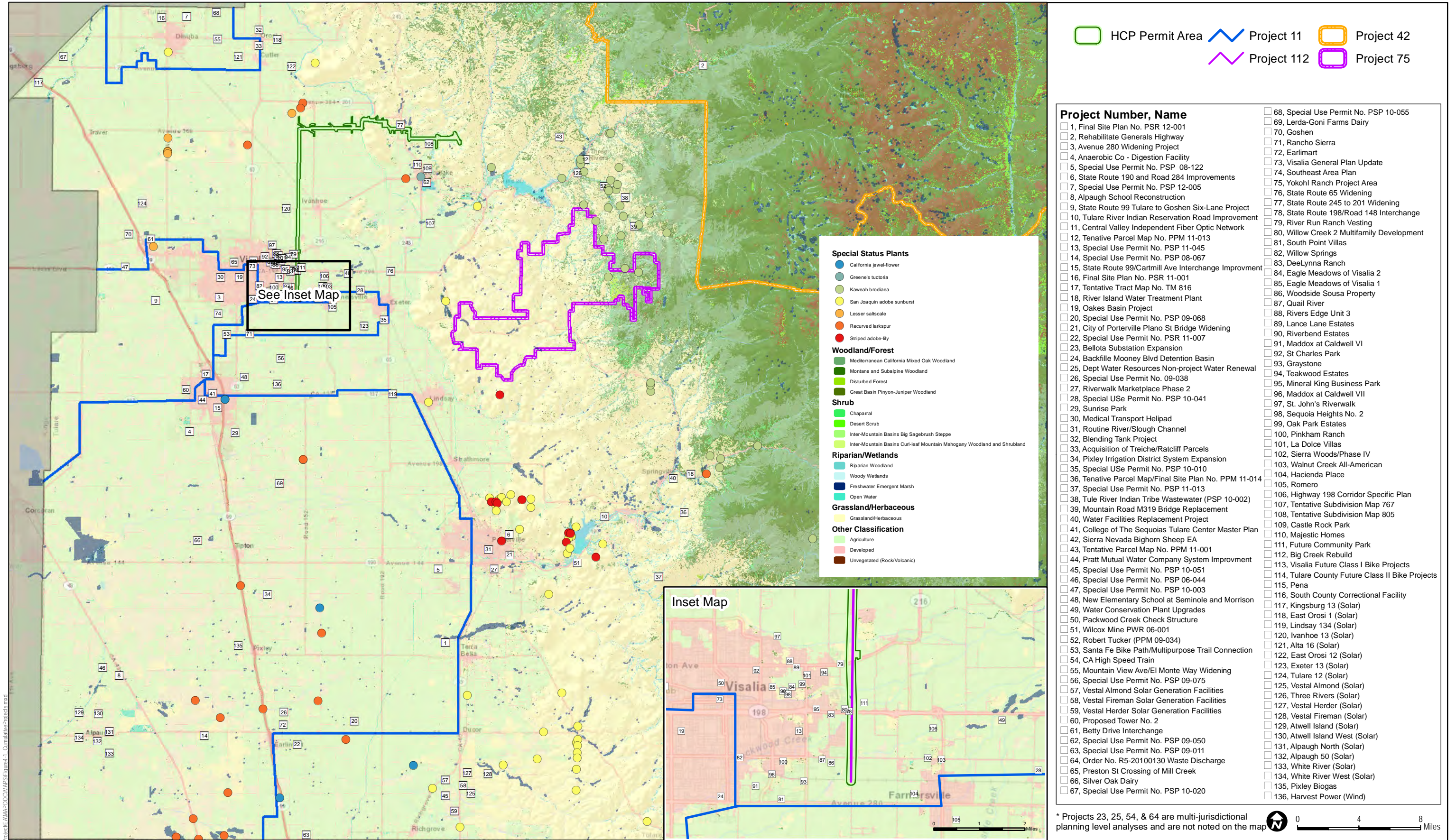


SOURCE: SCE 2013, CNDDB 2013, ESRI Online

FIGURE 8-27

Special Status Plants Suitable Habitat

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CHAPTER 9.0

LAND USE AND PLANNING

This chapter describes the existing conditions pertaining to land use and planning and discusses applicable regulatory framework related to federal, state, and local regulations. This section also evaluates the potential environmental consequences that could result from each alternative discussed in Chapter 2 related to potential conflicts with applicable plans and policies.

Public and agency comments received during early public scoping (CPUC 2009) included concerns regarding conflicts with the City of Farmersville's and City of Visalia's land use and planning. The HCP Permit Area would avoid passing through the City of Farmersville, and thus land use concerns within this jurisdiction would not be applicable to the Service's proposed action. Specific comments regarding impacts to agricultural land uses are addressed in Chapter 5, Agricultural Resources.

9.1 AFFECTED ENVIRONMENT

This section describes the existing setting in the resource study area and identifies the resources that could be affected by the proposed action or construction, operation, and maintenance Covered Activities in the HCP Permit Area. For the purposes of this analysis, the resource study area for direct effects comprises the transmission line's proposed alignment plus the 1,000-foot HCP Permit Area corridor. The area of indirect effects extends to the County of Tulare portion of the Electrical Service Needs Area, which includes the Cities of Tulare, Visalia, Farmersville, Exeter, and Woodlake.

The HCP Permit Area is located within northwestern Tulare County, California (County), and traverses through a small portion of the City of Visalia and City of Visalia's Urban Area Boundary and Urban Development Boundary. The Cross Valley Transmission Line HCP consists of a new approximately 23-mile double-circuit 220-kilovolt (kV) transmission line that would connect the existing Big Creek 3–Springville 220 kV transmission line to the 220 kV Rector Substation creating the new Big Creek 3–Rector No. 2 and Rector Springville 220 kV transmission line circuits. Approximately 10.8 miles of the total 23-mile transmission line would be constructed in the eastern half of the existing north–south right-of-way (ROW) vacated by dismantling of the Big Creek 3–Rector 220 kV transmission line, and the remaining 12.2 miles would be constructed in a new 100-foot east–west ROW. Southern California Edison (SCE) would acquire the required ROW along the east–west alignment for the transmission line within the HCP Permit Area as fee-owned or an easement agreement across private land. Land uses adjacent to the north–south and east–west ROWs include orchards, row crops, open space, and residential use (Figure 9-1, Existing Land Uses). There are 869 residential parcels adjacent to or in the HCP Permit Area.

As previously mentioned, the proposed HCP Permit Area is located within Tulare County, and a small portion is located within the City of Visalia and City of Visalia's Urban Area Boundary and Urban Development Boundary. Agriculture and grazing have historically been the primary land uses within Tulare County. Although these land uses continue to be the primary land uses in Tulare County, there are portions of the County that are experiencing rapid urbanized growth. According to the California Department of Conservation Important Farmland Data Availability Land Use Conversion Table, between 1998 and 2004, 28,399 acres of Farmland-designated lands were converted to non-Farmlands, and 383 acres of grazing lands were converted to urban use. However, 27,657 acres of Farmland of Local Importance was gained during these years. Between 2004 and 2010, 31,049 acres of Farmland-designated lands were converted to non-Farmlands, and 578 acres of grazing lands were converted to urban use. However, 17,115 acres of Farmland of Local Importance was gained during these years (Department of Conservation 2011).

The Tulare County General Plan has designated land use areas for future development including, but not limited to, Rural Valley Lands Plan, Foothill Agriculture, and Foothill Mixed Use. The designated land use areas within the transmission alignment are shown on Figure 9-2, Land Use Designation (E–W Alignment), and Figure 9-3, Land Use Designation (N–S Alignment).

Each of these land use designations provides for future development while recognizing and protecting agricultural uses.

- **Rural Valley Lands Plan.** This is an area plan of the Tulare County General Plan that provides additional land use designations and policies for areas zoned for agriculture. The Rural Valley Lands Plan applies to approximately 773,500 acres of the western portion of the County and applies to areas outside the County's planned Urban Development Boundaries for cities and unincorporated communities. The Rural Valley Lands Plan was initiated to protect and maintain agricultural viability. The Rural Valley Lands Plans both establishes minimum parcel sizes for areas zoned for agriculture and implements a policy that supports reasonable accommodation for parcels that are not deemed suitable for agriculture activities.

The Rural Valley Lands Plan designates five Exclusive Agricultural (AE) zones: AE, AE-10, AE-20, AE-40, and AE-80. Each requires a different minimum parcel size (ranging from 5–80 acres). The Rural Valley Lands Plan also contains non-agricultural land use designations.

The HCP Permit Area would cross the following Rural Valley Lands Plan land use designations: PD-F-M (Planned Development), AF (Foothill Agricultural), AE-20, AE-40 AE-80, R-A-43 (Rural Residential), and F-1 (Primary Floodplain) zoning designations (see Figure 9-4, Rural Valley Lands Plan).

- **Foothill Agriculture.** This designation establishes areas for agricultural activities primarily located in the foothill and mountain regions where extensive commercial agricultural uses can exist without conflicting with other uses, or where conflicts can be mitigated. Uses typically allowed include orchards and vineyards, grazing,, resource extraction activities, facilities that directly support agricultural operations, and other necessary public utility and safety facilities. Allowable residential development includes one principal and one secondary dwelling unit per 160 acres, for relative, caretaker/employee, or farm worker housing. This designation is located primarily outside Urban Development Boundaries and foothill development corridors. The Foothill Growth Management Plan applies to all lands designated Foothill Agriculture except those lands located in the Community Plan areas.
 - Minimum Parcel Size: 160 Acres
 - Maximum Density: 1 dwelling unit per 80 acres
 - One additional unit may be allowed for every 40 additional acres over 160 acres.
 - Maximum Intensity: 0.02 FAR.
- **Foothill Mixed Use.** This designation establishes areas within the foothill development corridors for residential, commercial recreation, and light industrial uses. Density bonuses for residential units of 25–35% may be granted, according to the Density Bonus Ordinance or state law, in these areas to encourage the development of affordable housing units and compact development with mass transit, which can contribute to the reduction of global warming. Uses typically allowed include: single-family and multifamily residential dwellings; eating and drinking establishments; food and beverage retail sales; limited personal, medical, and professional services; repair services; retail sales; and agricultural-related industrial uses. Such facilities may range from a single use to a cluster of uses.

(Maximum Density and Intensity in the Foothill Region are determined based on site capacity and analysis conducted in accordance with the procedures and standards set forth in Part II, Chapter 3 of the Foothill Growth Management Plan).

A portion of the north–south HCP Permit Area is within quasi-public, agriculture, and single-family residential zoning designations, and park, residential medium density, residential low density, and agriculture land use designations (City of Visalia 2013). A portion of the N-S HCP Permit Area is also within the City of Visalia’s Urban Area Boundary and Urban Development Boundary.

- **Urban Area Boundary.** The Urban Area Boundary contains an approximately 90-square mile area which represents Visalia’s sphere-of-influence or the City’s probable ultimate physical boundary and service area. The land area between the Urban Area Boundary and the Urban Development Boundary, known as the urban fringe, is generally not suited for

urban development within the City's adopted 1990 Land Use Element's 30-year planning and implementation period (year 2020). The urban fringe is designated for Agriculture.

- **Urban Development Boundary.** The Urban Development Boundary is the estimated urbanizable area within which a full-range of urban uses will be extended to accommodate urban development to the year 2020. Three boundaries are based on estimated City population through 2020. These boundaries have been primarily determined to accommodate land use demand associated with economic and population projections.

No land use designations or zoning would be changed as a result of the proposed action or construction, operation, and maintenance Covered Activities in the HCP Permit Area. The transmission alignment would be located within SCE ROW or future acquired ROW or within an easement.

9.2 IMPACT ANALYSIS REGULATORY FRAMEWORK

Federal Regulations

There are no federal regulations pertaining to land use and planning that would apply to the proposed action.

State Regulations

The following State of California regulations pertaining to land use and planning would apply to the proposed action.

California Public Utilities Commission General Order No. 131-D

The California Public Utilities Commission (CPUC) has sole and exclusive jurisdiction over the siting and design of the proposed action because it authorizes the construction, operation, and maintenance of investor-owned public utility facilities. Although such projects are exempt from local land use and zoning regulations and discretionary permitting (i.e., would require approval from a local decision-making body such as a planning commission or board of supervisors), General Order No. 131-D, Section XIV.B, requires that in locating a project, the public utilit[y] shall consult with local agencies regarding land use matters (CPUC 1995). The public utility is required to obtain any required nondiscretionary local permit.

Local Regulations

The following local regulations pertaining to land use and planning would apply to the proposed action.

Tulare County General Plan Policy

The Planning Framework, Land Use Element, Transportation and Circulation Element, and Public Facilities and Services Element of the Tulare County General Plan (County of Tulare 2010a) provide objectives, policies, and programs regarding land use and planning, including the following relevant to the proposed action:

Planning Framework

Goal PF-6: To work with agencies, districts, utilities, and Native American tribes to promote consistency with the County's General Plan.

Policy PF-6.1: Plans for Jurisdictions, Agencies, Districts, Utilities, and Native American Tribes. The County shall work with Tulare County cities; adjacent counties and cities; Federal, State, and regional agencies; local districts; utility providers; Native American tribes; and the military to ensure that their plans are consistent with Tulare County's General Plan to the greatest extent possible.

Policy PF-6.2: Intergovernmental Coordination. The County shall work with Federal, State, and regional agencies; local districts; utility providers; Native American tribes; and the military to ensure that the County and the public are involved, as appropriate, throughout any planning process and that agency and public input is requested.

Land Use Element

Policy LU-2.3: Open Space Character. The County shall require that all new development requiring a County discretionary approval, including parcel and subdivision maps, be planned and designed to maintain the scenic open space character of open space resources including, but not limited to, agricultural areas, rangeland, riparian areas, etc., within the view corridors of highways. New development shall utilize natural landforms and vegetation in the least visually disruptive way possible and use design, construction and maintenance techniques that minimize the visibility of structures on hilltops, hillsides, ridgelines, steep slopes, and canyons.

Transportation and Circulation Element

Policy TC-5.8: Multi-Use Trails. The County shall encourage the development of multi-use corridors (such as hiking, equestrian, and mountain biking) in open space areas, along power line transmission corridors, utility easements, rivers, creeks, abandoned railways, and irrigation canals.

Public Facilities and Services

Policy PFS-9.3: Transmission Corridors. The County shall work with the Public Utilities Commission and power utilities so that transmission corridors meet the following minimum requirements:

- Transmission corridors shall be located to avoid health impacts on residential lands and sensitive receptors, and
- Transmission corridors shall not impact the economic use of adjacent properties.

Policy PFS-9.4: Power Transmission Lines. The County shall work with the Public Utilities Commission and power utilities in the siting of transmission lines to avoid interfering with scenic views, historic resources, and areas designated for future urban development.

Tulare County Rural Valley Lands Plan

The Rural Valley Lands Plan, adopted by the County in 1975, is an area plan of the Tulare County General Plan that provides additional land use designations and policies for areas zoned for agriculture. The Rural Valley Lands Plan applies to approximately 773,500 acres of the western portion of the County and applies to areas outside the County's planned Urban Development Boundaries, Hamlet Development Boundaries, Urban Area Boundaries for cities, and other adopted land use plans which may include urban corridors, planned communities, and the Kings River Plan. The Rural Valley Lands Plan was initiated to protect and maintain agricultural viability. The Rural Valley Lands Plan both establishes minimum parcel sizes for areas zoned for agriculture and implements a policy that supports reasonable accommodation for parcels that are not deemed suitable for agriculture activities.

Tulare County Foothill Growth Management Plan

The Foothill Growth Management Plan is an area plan of the Tulare County General Plan that provides development policies and standards for the foothill region of Tulare County. The Foothill Growth Management Plan applies to approximately 675,641 acres east of the Rural Valley Lands Plan. The plan's policies provide guidelines for community identity, new development, recreation/open space, agriculture, environmental protection, scenic corridors protection, history/archaeology, infrastructure facilities, and public services.

The Foothill Growth Management Plan utilizes four land use designations, all of which would be crossed by the HCP Permit Area: Development Corridor, Extensive Agriculture, Foothill Extension, and Valley Agriculture Extension (see Figure 9-5, Foothill Growth Management Plan).

Tulare County Zoning Ordinance

The HCP Permit Area would traverse parcels within AE-20, AE-40, AE-80, AF, F-1, PD-F-M, R-A-43, and R-A-12.5 zoning designations (see Figure 9-6, Zoning (E–W Alignment), and Figure 9-7, Zoning (N–S Alignment)).

The AE-20 Zone is an exclusive zone for intensive agricultural uses and for those uses which are a necessary and integral part of the agricultural operation. The purpose of this zone is to protect the general welfare of the agricultural community from encroachments of unrelated agricultural uses which, by their nature, would be injurious to the physical and economic well-being of the agricultural community. The AE-20 Zone also serves to prevent or minimize the negative interaction between various agricultural uses. A related purpose of the AE-20 Zone is to disperse intensive animal agricultural uses to avoid air, water, or land pollution otherwise resulting from compact distributions of such uses. The minimum parcel size permitted to be created in this zone is, with certain exceptions, 20 acres (County of Tulare 1972a).

The AE-40 Zone is an exclusive zone for intensive and extensive agricultural uses and for those uses which are a necessary and integral part of intensive and extensive agricultural operations. The purpose of this zone is as follows:

1. To protect the general welfare of the agricultural community from encroachments of unrelated uses which, by their nature, would be injurious to the physical and economic well-being of the agricultural community and the community at large.
2. To prevent or minimize the negative interaction between various agricultural uses.
3. To prevent or minimize land use conflicts or injury to the physical or economic well-being of urban, suburban, or other non-agricultural uses by agricultural uses.
4. To disburse intensive animal agricultural uses in order to avoid air, water, or land pollution otherwise resulting from compact distributions of such uses.
5. To provide for a minimum parcel standard which is appropriate for areas where soil capability and cropping characteristics are such that a breakdown of land into units of less than 40 acres would adversely affect the physical and economic well-being of the agricultural community and the community at large.
6. To function as a holding zone within Urban Area Boundaries as designated by the General Plan whereby land may be retained in agricultural use until such time as conditions warrant conversion of such land to urban use.

The minimum parcel size permitted to be created in this zone is, with certain exceptions, 40 acres (County of Tulare 1976).

The AE-80 Zone is an exclusive zone for agricultural uses and for those uses which are a necessary and integral part of the agricultural operation. The purpose of this zone is to protect the general welfare of the agricultural community from encroachments of unrelated agricultural uses which, by their nature, would be injurious to the physical and economic well-being of the agricultural community. The AE-80 Zone also serves to prevent or to minimize the negative interaction between various agricultural uses. A related purpose of the AE-80 Zone is to disperse intensive animal agricultural uses to avoid air, water, or land pollution otherwise resulting from compact distributions of such uses. The minimum parcel size permitted to be created in this zone is, with certain exceptions, 80 acres (County of Tulare 1972b).

The AF Zone is an exclusive zone for intensive and extensive foothill agricultural uses and for those uses which are a necessary and integral part of intensive and extensive foothill agricultural operations. The purposes of this zone are as follows:

1. To protect the general welfare of the foothill agricultural community from encroachments of unrelated uses which, by their nature, would be injurious to the physical and economic well-being of the foothill agricultural community and the community at large.
2. To prevent or minimize the negative interaction between various foothill agricultural uses.
3. To prevent or minimize land use conflicts or injury to the physical or economic well-being of the urban, suburban, or other non-agricultural uses by foothill agricultural uses.
4. To disburse intensive animal agricultural uses in order to avoid air, water, or land pollution otherwise resulting from compact distribution of such uses.
5. To provide for a minimum parcel standard which is appropriate for foothill areas where soil capability and other characteristics are such that the unregulated breakdown of land would adversely affect the physical and economic well-being of the foothill agricultural community and the community at large.
6. To implement land use controls and development standards which are necessary to achieve the goals and objectives for foothill agricultural lands as required by the General Plan.
7. To function as a holding zone in certain foothill areas which should be retained in extensive agricultural use until such time as the General Plan is amended to provide for the conversion of such lands to urban use.

The minimum parcel size permitted to be created in this zone is, with certain exceptions, 160 acres (County of Tulare 1981a).

The F-1 Zone is intended to be applied to protect property in high-risk flood areas. The purpose of the F-1 Zone shall be the prevention of loss of life, the minimization of property damage, and the maintenance of satisfactory conveyance capacities of waterways through the prevention of encroachments by obstructions in the floodway which may diminish the ability of the floodway to carry overloads during periods of flooding. The F-1 Zone is to be used in concert with the flood damage prevention regulations established in Chapter 8 of Part VII of the Ordinance Code of Tulare County. However, it shall only be delineated on the County Zoning Map when necessary to establish flood plain regulations after completion of a federal project report pursuant to Section 8411 of the California Water Code (County of Tulare 1986).

The PD Zone is intended to be applied to combine with other zones to reduce development restrictions and provide for harmonious uses. The purposes of the PD Zone are to:

1. Provide for design flexibility in single-family, multifamily, commercial, professional, industrial, and mixed-use developments.
2. Stimulate a more desirable living and working environment than would be permitted by the strict application of zoning regulations on a conventional individual-use or lot-by-lot method.
3. Encourage innovative and creative approaches to land use and development.
4. Provide the means to reduce development costs through the promotion of improved and integrated design and land planning techniques.
5. Conserve natural features and open space, while facilitating aesthetics and compatible land use patterns.
6. Implement general and specific plans which require a planned development approach.
7. Provide an alternative means of achieving the purpose of Section 18.5, Planned Unit Development, of the Zoning Ordinance (County of Tulare 1981b).

The R-A Zone is intended to be applied to single-family residential uses and agricultural production.

The Tulare County Zoning Ordinance also contains several “overlay” zones. Overlay zones combine with an underlying zoning district to provide additional development requirements for the underlying district. The PD district is an overlay zone intended to provide an area of planned development and is combined with other zones to reduce development restrictions and provide for harmonious uses. The Scenic Corridor Combining (SC) district is an overlay zone intended to provide an area for a scenic corridor and is combined with other zones to protect the visual quality of roads. The Special Mobile Home (M) district is an overlay zone intended to provide for mobile home use in communities where such housing is desirable. The Service Commercial (C-3) district is intended to provide land areas for wholesale and repair services. The F-1 overlay

zone is intended to protect property in high-risk flood areas. The F zone is intended to be combined with the PD zone for use within areas designated as Development Corridor or Foothill Extension by the Foothill Growth Management Plan.

Habitat Conservation Plan

The construction, as well as future operation and maintenance (O&M) activities, along the 23-mile Cross Valley Transmission Line may cause the take of federally listed threatened and endangered species. Consequently, SCE must apply to the Service for a permit to authorize the incidental take of federally listed species resulting from construction, operation and maintenance, and repair (both routine and emergency) activities associated with the Cross Valley Transmission Line HCP. These activities are referred to as Covered Activities. Under Section 10(a)(2)(A) of federal Endangered Species Act, any application for an incidental take permit must include an HCP. The HCP is developed to implement a conservation plan that will avoid, minimize, and compensate for potential adverse effects on threatened and endangered species that may result from Covered Activities; accommodate SCE's construction and O&M activities in the HCP Permit Area; and provide a basis for take authorization pursuant to the Endangered Species Act. Refer to Chapters 7 and 8, the biological resources chapters, focused on habitat and wildlife, respectively, for more information on the HCP.

City of Visalia General Plan

The Land Use Element of the Tulare County General Plan (City of Visalia 1996) provide objectives and policies regarding land use and planning, including the following:

Policy 2.2A: Promote development and public resource management practices which will result in resource conservation.

Policy 5.2B: Coordinate location of public improvements for other local agencies and districts to maximize service to the general public with an emphasis on their location in the Core Area.

It should be noted that the CPUC has sole exclusive jurisdiction over the siting and design of the transmission line. As previously mentioned, although the transmission line would be exempt from local land use and zoning regulations and discretionary permitting, General Order No. 131-D, Section XIV.B, requires that in locating a project, the public utilit[y] shall consult with local agencies regarding land use matters (CPUC 1995). Therefore, because the public utility is exempt from local land use zoning regulations and discretionary permitting, this land use consistency analysis is provided for informational purposes only.

9.3 ENVIRONMENTAL CONSEQUENCES

9.3.1 Methodology for Impact Analysis

Although construction-related activities would not be considered to be land use impacts as the alignment would be within an SCE ROW, activities that would affect adjacent land uses are discussed in Chapter 15, Visual Resources; Chapter 13, Air Quality and Climate Change; Chapter 14, Noise; and Chapter 12, Traffic and Transportation. Construction-related impacts in the HCP Permit Area would be relatively short term in nature (approximately 1 year) and would not continue after the transmission line begins full operation, except during routine O&M activities or in the event of an emergency. Certain construction-related effects would require Environmental Commitments (ECs) identified in the chapters mentioned previously to reduce impacts to less-than-significant levels. For analysis and discussions of these construction-related impacts, please refer to the above-identified chapters.

The HCP Permit Area setting was developed by reviewing available information on land use and planning in the vicinity of the transmission alignment using the Tulare County General Plan, Rural Valley Lands Plan, Foothill Growth Management Plan, Zoning Ordinance, City of Visalia General Plan, and land use and zoning maps.

For all alternatives presented in Chapter 2, changes in land cover were assessed by overlaying the proposed HCP Permit Area onto the existing land use and zoning using geographic information systems (GIS). Potential land use impacts also were considered in terms of how activities would be consistent with applicable land use plans and policies.

Identifying the Threshold of Significance

For the purposes of this EA, an alternative would have a significant impact related to land use and planning if it would:

- Conflict with land use plans and policies
- Inhibit future land uses of the HCP Permit Area.

9.3.2 No Action Alternative

Direct and Indirect Effects

Under the No Action Alternative, the proposed HCP, including Covered Activities, would not be implemented, and land uses would not be affected by development of a transmission line in the HCP Permit Area. Under future conditions, reasonably foreseeable land use and planning activities that would normally occur under the No Action Alternative include rural development,

agricultural-related operations, some residential development, and capital improvement projects. These activities would cause a permanent change in land cover. Development projects would be assessed for compliance with local policies and regulations within Tulare County or the City of Visalia, and would be required to prepare California Environmental Quality Act (CEQA) documentation as projects with discretionary actions are proposed. Projects would be individually required to mitigate any potentially significant land use impacts. Development is expected to be consistent with general plan policies.

There is a possibility that future development projects may cause the take of federally listed, threatened, and endangered species. Consequently, the project proponent would need to apply for a permit from the Service to authorize the incidental take of federally listed species resulting from construction, operation, and maintenance of the project. The permit would be developed to implement a conservation plan that will avoid, minimize, and compensate for potential adverse effects on threatened and endangered species that may result from Covered Activities from the project and provide a basis for take authorization pursuant to the Endangered Species Act.

Under the No Action Alternative, the Cross Valley Transmission Line would not be constructed. This would have an indirect negative effect on electrical service/supply to residences and businesses that require electricity in the event of power outages. Under existing conditions, during periods of heavy electrical demand, such as extremely cold or hot weather, the two existing transmission lines can become overloaded, causing power outages within the system. Any power outage of one of these two transmission lines during these heavy demand periods prevents the Rector Substation from distributing electrical power to many of SCE's residential and commercial customers in the Rector Substation service area, which is located in Tulare and Kings Counties. Thus, such transmission line outages result in electrical outages or a "voltage collapse" within the Rector Substation service area. A "voltage collapse area" is defined by the North American Electric Reliability Corporation (NERC)/Western Electricity Coordinating Council (WECC) Standard TPL-003 2013 as a geographic area where power is lost for an extended period of time. In the event of a voltage collapse, SCE may be unable to serve up to 50,000 of its residential and commercial customers that rely on the Rector Substation for electrical power.

Determination

Under the No Action Alternative, land uses would not be affected by development of a transmission line in the HCP Permit Area. Land uses would remain as they currently exist or as they are envisioned to change under the adopted General Plan. Under this alternative, future development in the HCP Permit Area could occur that is compatible with existing land uses. For projects that would potentially cause the take of federally listed, threatened, or endangered species, a permit from the Service to authorize the incidental take of federally listed species

resulting from the project and an HCP would need to be prepared to support the Service's take permit. The No Action Alternative would have an indirect effect on SCE residential and commercial customers within the Cities of Tulare, Visalia, Farmersville, Exeter, and Woodlake, as well as the Tulare County portion of the Electrical Needs Area as existing limitations in the transmission system would not be improved, exposing residents and business owners in the area to potential outages. Outages within the Rector Substation service area would continue until the transmission line experiencing the outage is repaired or heavy electrical demand is substantially reduced. Outages within the Rector Substation service area would continue until the transmission line experiencing the outage is repaired or heavy electrical demand is substantially reduced. Because the existing lines do not meet the current electrical demand during periods of high use and electrical demand is expected to increase in the future in the Rector Substation service area, this overload condition is also expected to increase. The No Action Alternative would not meet the purpose and need of the action, may cause a conflict with land use plans and policies, and may inhibit future land uses of the HCP Permit Area.

9.3.3 Proposed Action Alternative

Direct and Indirect Effects

Impact LU-1: Potential to conflict with land use plans and policies.

The HCP area would be located within Tulare County, and a portion would be within the City of Visalia or the City of Visalia's Urban Area Boundary, or the City of Visalia's Urban Development Boundary. However, the CPUC has sole and exclusive jurisdiction over the siting and design of the HCP Permit Area. As previously mentioned, although construction within the HCP Permit Area would be exempt from local land use and zoning regulations and discretionary permitting, General Order No. 131-D, Section XIV.B, requires that in locating a project, the public utility shall consult with local agencies regarding land use matters (CPUC 1995). Therefore, because the public utility is exempt from local land use zoning regulations and discretionary permitting, this land use consistency analysis is provided for informational purposes only. The public utility is required to obtain any required nondiscretionary local permit. SCE would obtain input from Tulare County and the City of Visalia regarding land use matters related to the siting of the transmission line (e.g., traffic control plan) prior to construction of the transmission alignment. This would result in no significant adverse effects regarding conflicts with land use plans and policies.

In addition, SCE is seeking a permit pursuant to Section 10(a)(1)(B) of the Endangered Species Act for incidental take of federally threatened and endangered species and other species proposed for listing that may be affected by the construction of the transmission line, specifically the 12.2-mile portion running in the east–west direction. The HCP has been prepared to develop

and implement a plan that would avoid, minimize, and compensate for potential adverse effects on threatened and endangered species that may result from Covered Activities. Construction and O&M activities within the HCP area would comply with the requirements outlined in the HCP. This would result in no significant adverse effects related to land use and planning policies.

Construction activities associated with the proposed action could temporarily affect local roadways due to temporary sidewalk, bike lanes, and lane closures. Implementation of a traffic control plan as outlined in Chapter 12, Transportation and Circulation, would ensure compliance with Tulare County and City of Visalia emergency response plans. This would result in no significant adverse effects related to land use and planning policies.

Impact LU-2: Inhibit future land uses of the HCP Permit Area.

The HCP Permit Area would be located within Tulare County and a portion of the north–south alignment lies within the City of Visalia or the City of Visalia’s Urban Area Boundary, or the City of Visalia’s Urban Development Boundary. The HCP Permit Area would traverse Tulare County lands within the AE-20, AE-40, AE-80, AF, F-1, PD-F-M, R-A-43, and R-A-12.5 zoning designations (see Figure 9-4). Within the Tulare County Foothill Growth Management Plan, the HCP Permit Area would traverse parcels within the Development Corridor, Extensive Agriculture, Foothill Extension, and Valley Agriculture Extension designations (see Figure 9-5). A portion of the north–south alignment HCP Permit Area is within quasi-public, agriculture, and single-family residential zoning designations, and park, residential medium density, residential low density, and agriculture land use designations (City of Visalia 2013).

The north–south transmission alignment would be an allowed use since the transmission line would be located within the existing 150-foot-wide existing SCE ROW. SCE would need to acquire a ROW for the remaining 12.2 miles (the ROW would be 100 feet in most instances) within the HCP Permit Area as fee-owned or as an easement agreement across the private land. Once the ROW has been acquired by SCE or an easement agreement has been reached, the proposed transmission line would be an allowed use within the HCP Permit Area. Access roads and spur roads are planned along various points in and out of the ROW as well.

No land uses are proposed to change in the HCP Permit Area as a result of the proposed action. The Tulare County General Plan, Tulare County Rural Valley Lands Plan, Tulare County Foothill Growth Management Plan, and City of Visalia General Plan do not discuss the allowance or disallowance of transmission line facilities within the above-mentioned land use designations. However, Section 16, Variance and Special Use Permit, of the Tulare County codes states that public utilities within AE, AE-10, AE-20, AE-40, AE-80, A-1, AF, RC, R-A, MR, R-O, R-1, R-2, R-3, P-O, P-1, O, CO, C-1, C-2, C-3, and AP designations are an allowable use subject to a Special Use Permit (County of Tulare 2012). The HCP Permit Area would be

located within the County's AE-20, AE-40, AE-80, AF, and R-A zoning designations which would typically be subject to a Special Use Permit. Section 16 of the County's code does not mention whether public utilities in the AF, F-1, or PD-F-M zoning designations are allowed subject to a Special Use Permit. However, SCE or its designee would not be required to obtain a Special Use Permit from Tulare County based on General Order No. 131-D. Regardless, SCE or its designee would obtain input from the County or City regarding land use matters related to the siting of the transmission alignment prior to construction activities. Consultation with Tulare County and City of Visalia planners regarding construction and O&M activities in the HCP Permit Area, per General Order No. 131-D, Section XIV.B, would ensure land use consistency within the HCP Permit Area.

In addition, a significant number of the parcels in the HCP Permit Area designated as agriculture are currently under a Williamson Act contract (see Chapter 5, Agricultural Resources). According to the Cross Valley Transmission Project EIR, and as discussed in Chapter 5, Agricultural Resources, the proposed action would permanently disturb 35 acres of Williamson Act contracted land (affecting approximately 58 parcels under contract) and temporarily disturb 77 acres (CPUC 2009). California Government Code, Section 51238, states that electrical facilities are a compatible use within an agricultural preserve; therefore, siting the transmission line in agricultural lands would not adversely affect Williamson Act contracted lands. Furthermore, transmission lines are an allowed use within the land use and zoning designations in the HCP Permit Area. SCE would not have land use control of the ROW except as it pertains to the operation and maintenance of the transmission lines. Additionally, construction of the transmission lines would require two laydown yards (the existing Ivanhoe and Avenue 156 yards), which would include temporary staging and storage areas. The laydown yards would only be temporary in nature and will revert to the designated land use once construction is completed.

Implementation of the transmission line would have a direct and indirect beneficial impact to SCE residential and commercial customers within the Cities of Tulare, Visalia, Farmersville, Exeter, and Woodlake, as well as the Tulare County portion of the Electrical Needs Area as electrical service and supply would be available to serve the new urban growth and development with build out of the Tulare County General Plan 2035, thus limiting power outages. Furthermore, implementation of the transmission lines would be a benefit to the greater regional system in terms of reliability and system capacity. This would result in no significant adverse effects, but rather a beneficial effect regarding conflicts with future land uses.

Determination

The proposed action alternative is consistent with existing and proposed land uses with the HCP Permit Area. No zoning or land uses are being amended in the HCP Permit Area. SCE would not have land use control of the ROW except as it pertains to the operation and maintenance of

Covered Activities. The potential exists that future development surrounding the HCP Permit Area could occur, but would go through the discretionary and approval process of the applicable jurisdiction. SCE is seeking a permit pursuant to Section 10(a)(1)(B) of the Endangered Species Act for incidental take of federally threatened and endangered species and other species proposed for listing that may be affected by the construction of a portion of the HCP Permit Area. The HCP has been prepared to develop and implement a plan that would avoid, minimize, and compensate for potential adverse effects on threatened and endangered species that may result from Covered Activities. For other projects that would potentially cause the take of federally listed, threatened, or endangered species, a permit from the Service to authorize the incidental take of federally listed species resulting from the project and an HCP would need to be prepared to support the Service's take permit. Implementation of the transmission line would better serve SCE residences and businesses owners in the Tulare County portion of the Electrical Needs Area as the demand for electrical needs increase with the County's population growth and development. Therefore, the proposed action would not have a significant adverse land use effect inhibiting future development in the HCP Permit Area.

Cumulative Effects of the Proposed Action

Impact LU-1: Potential to conflict with land use plans and policies.

The transmission line would be exempt from local land use and zoning regulations and discretionary permitting per General Order No. 131-D, Section XIV.B. However, SCE or its designee would still obtain input from the County or City regarding land use matters related to the siting of the transmission alignment prior to construction activities. Past, present, and reasonably foreseeable future projects would be required to comply with the County's (or City of Visalia's) land use plans and policies. Therefore, the effects of construction, operation, and maintenance of the proposed alignment, when considered with other projects in the region (see Figure 3-1), would not result in cumulatively considerable adverse land use plans and policies.

Impact LU-2: Inhibit future land uses of the HCP Permit Area.

The past, present, and reasonably foreseeable future projects described in Chapter 3 and shown on Figure 3-1 include several development projects in Tulare County and the City of Visalia. A number of the projects within the City of Visalia are not currently under construction but remain active through 2015, which means they would have the potential to be constructed at the same time as the proposed transmission line. Because these projects would not be constructed within the transmission line ROW, the projects would not affect the same lands and would not create land use or planning conflicts with the proposed transmission line alignment. The transmission alignment would be located within the SCE ROW or future acquired ROW or within an easement, and thus would not change the existing land use designations of the parcels which are mostly agriculture (AE-20, AE-40, AE-80 designations) for the area of the future acquired ROW.

Sensitive uses such as schools and hospitals are not located within the 1,000-foot corridor area. No homes are being demolished as a result of construction of the transmission alignment. Rather, the proposed transmission alignment would help alleviate the potential for power outages from thermal overloading with the buildout of the cumulative projects described in Chapter 3 and shown on Figure 3-1. The effects of construction, operation, and maintenance of the proposed alignment, when considered with other projects in the region (see Figure 3-1), would not result in cumulatively considerable adverse land use and planning effects.

Determination

The Service evaluated the past and present effects on land use as summarized in Sections 9.1–9.2. Then the Service evaluated effects of the reasonably foreseeable other projects, as summarized in Section 9.3 and Chapter 3. Finally, the Service added the incremental effects of the proposed action, as described in Section 9.3, to those other effects. The Service concludes that the small incremental effects of the proposed permit action and HCP, when added to the effects of the past, present, and reasonably foreseeable future projects on land use in the resource study area do not meet the identified thresholds of significance (LU-1 and LU-2) and are not considered significant.

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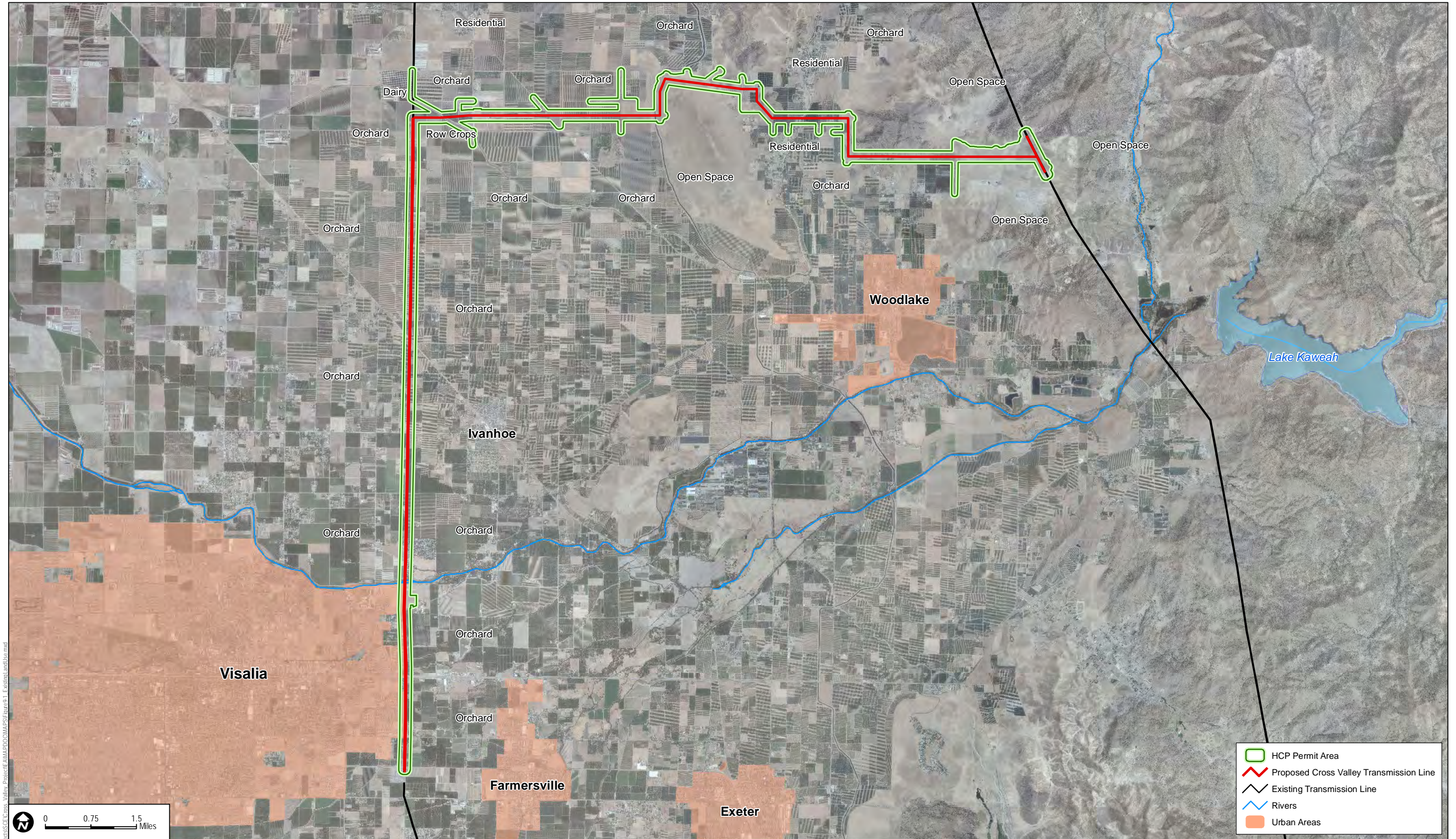
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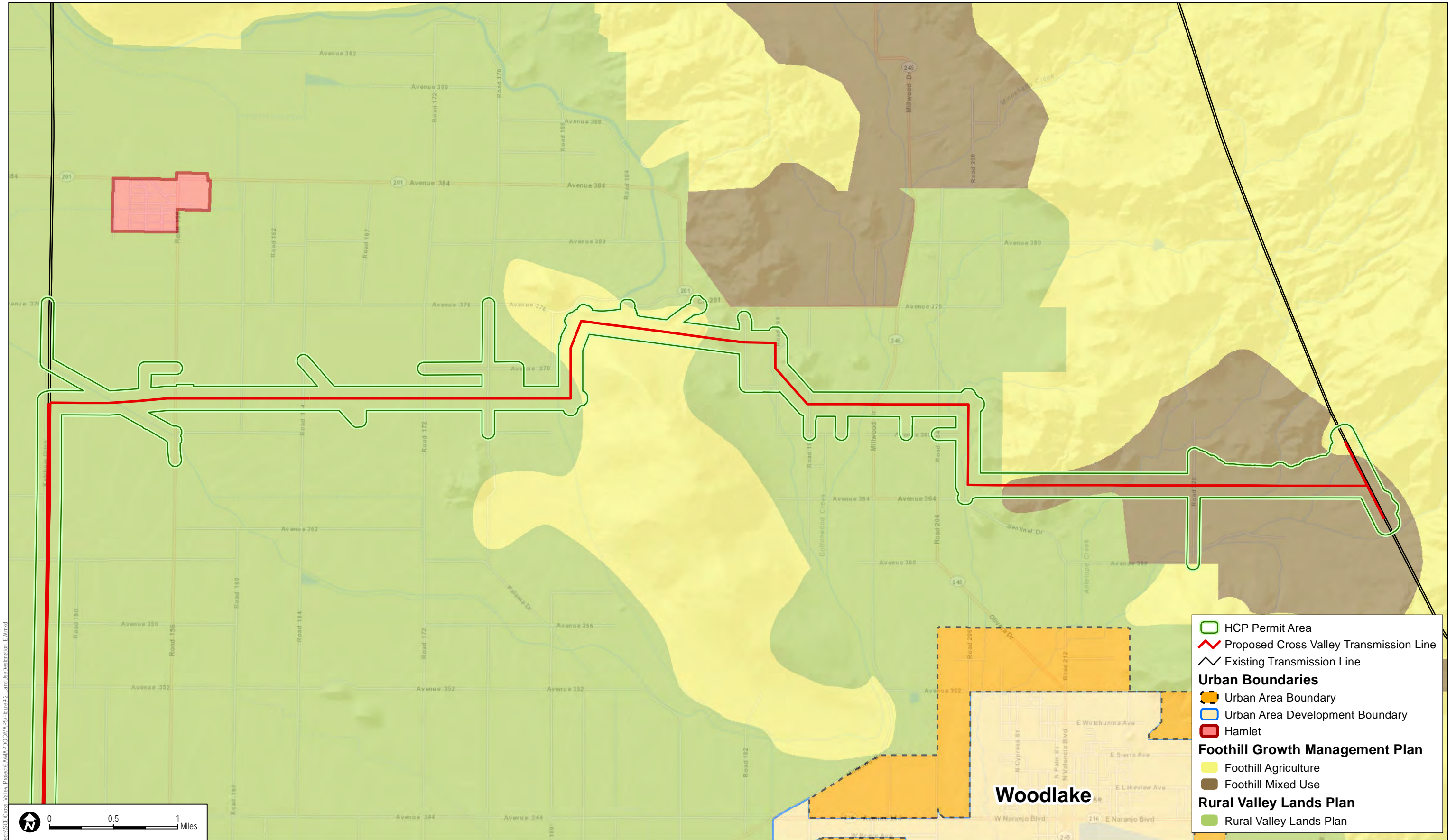


SOURCE: SCE 2013, Tulare County 2011, CDFG NAIP 2010

FIGURE 9-1
Existing Land Use

Path: \\vulpek\class\GIS\Digital\Projects\SCE\Cross Valley Project\EA\MAP\DOCOMAPSF\figure9-1_ExistingLandUse.mxd

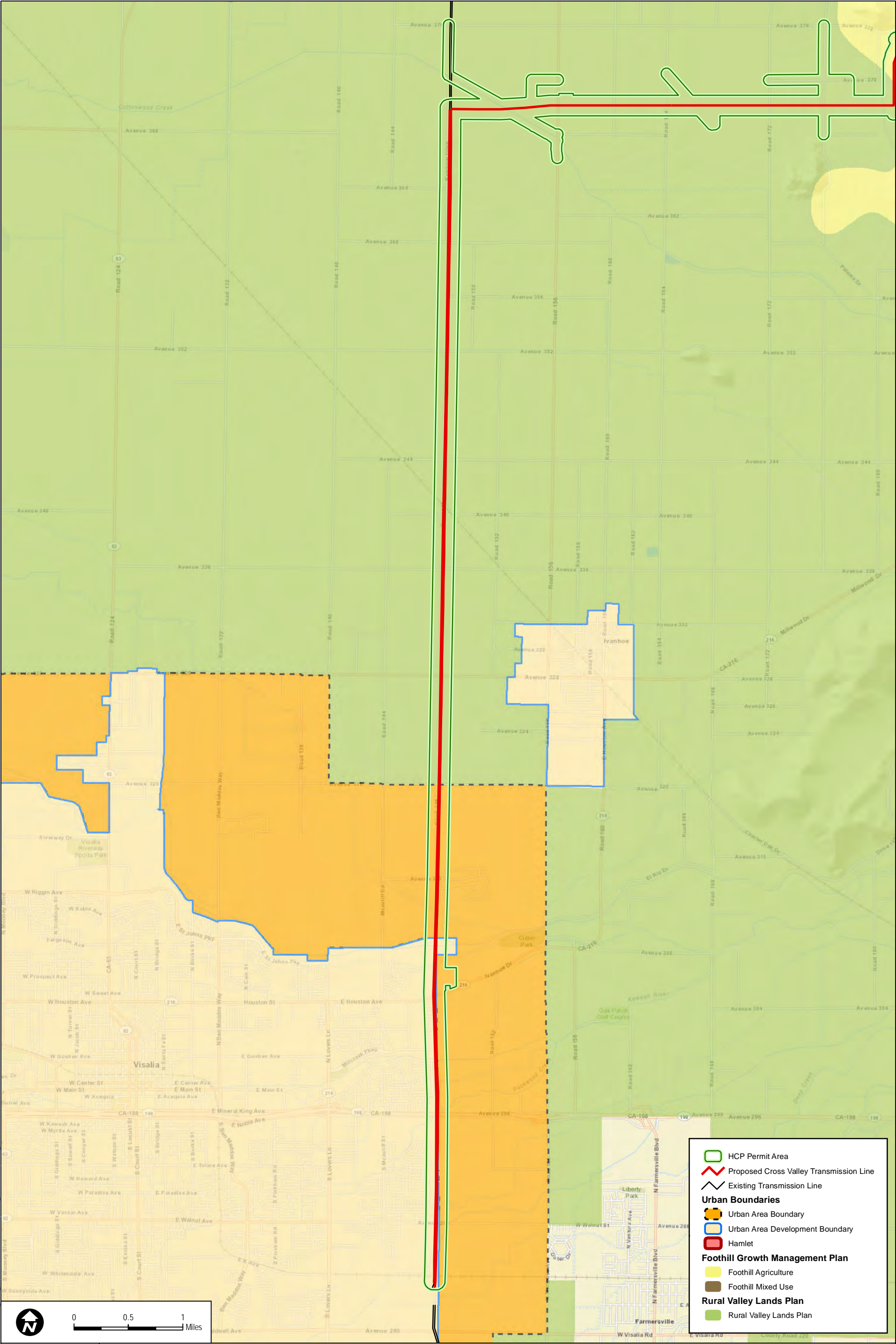
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SOURCE: SCE 2013, Tulare County 2011, ESRI Online

FIGURE 9-2
Land Use Designation (E-W Alignment)

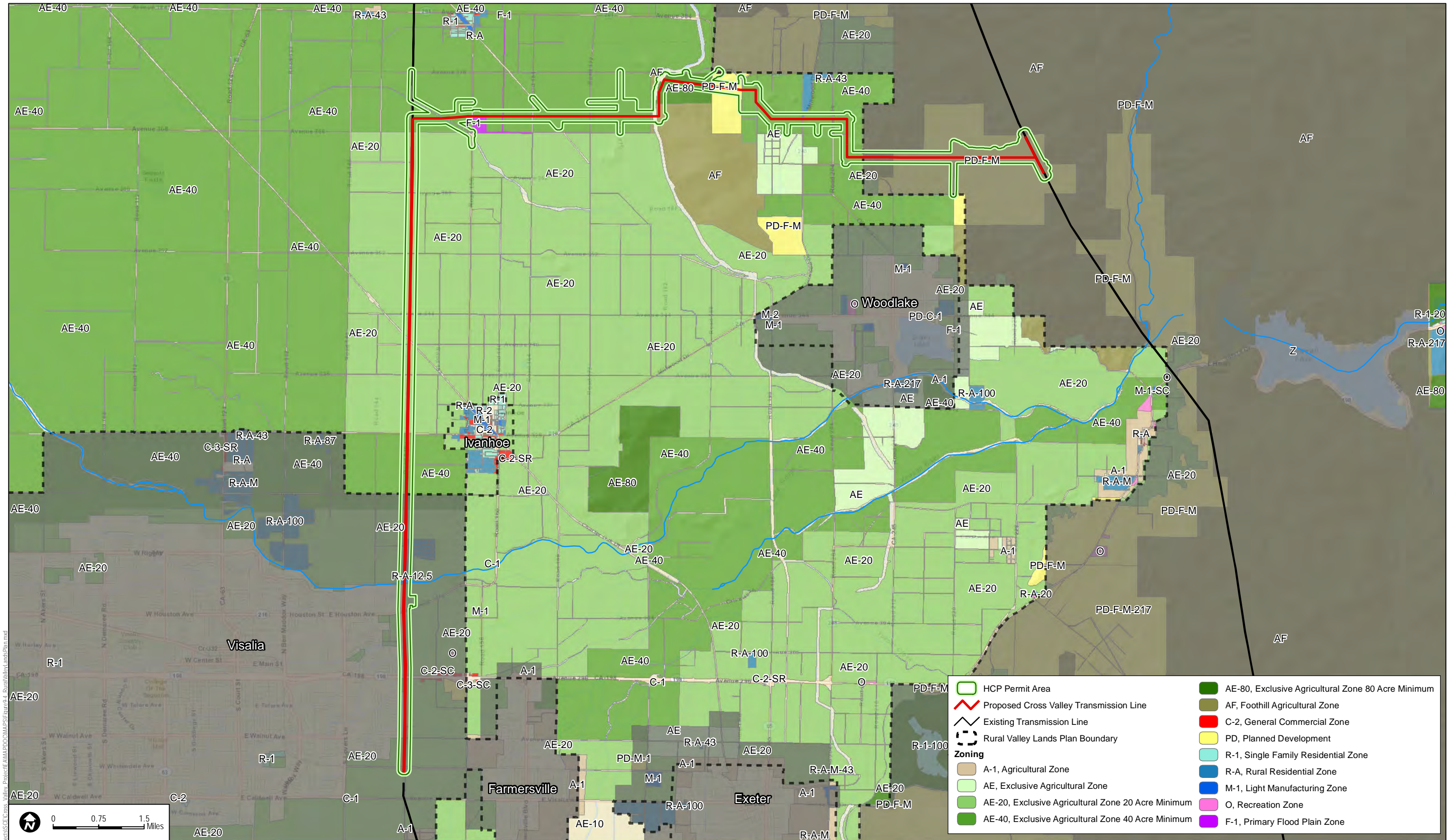
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SOURCE: SCE 2013, Tulare County 2011, ESRI Online

FIGURE 9-3
Land Use Designation (N-S Alignment)

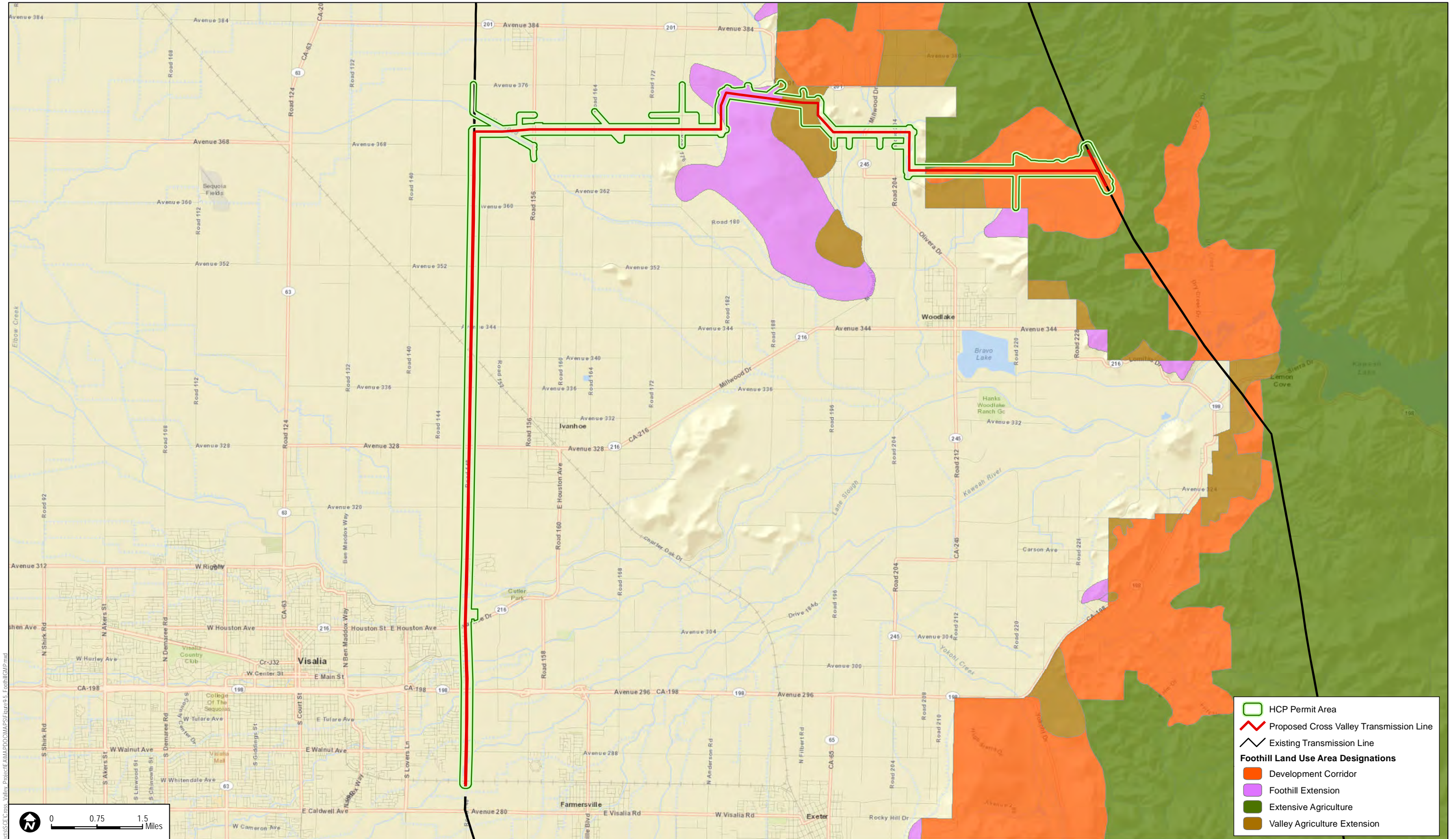
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SOURCE: SCE 2013, Tulare County 2011, ESRI Online

FIGURE 9-4
Rural Valley Lands Plan

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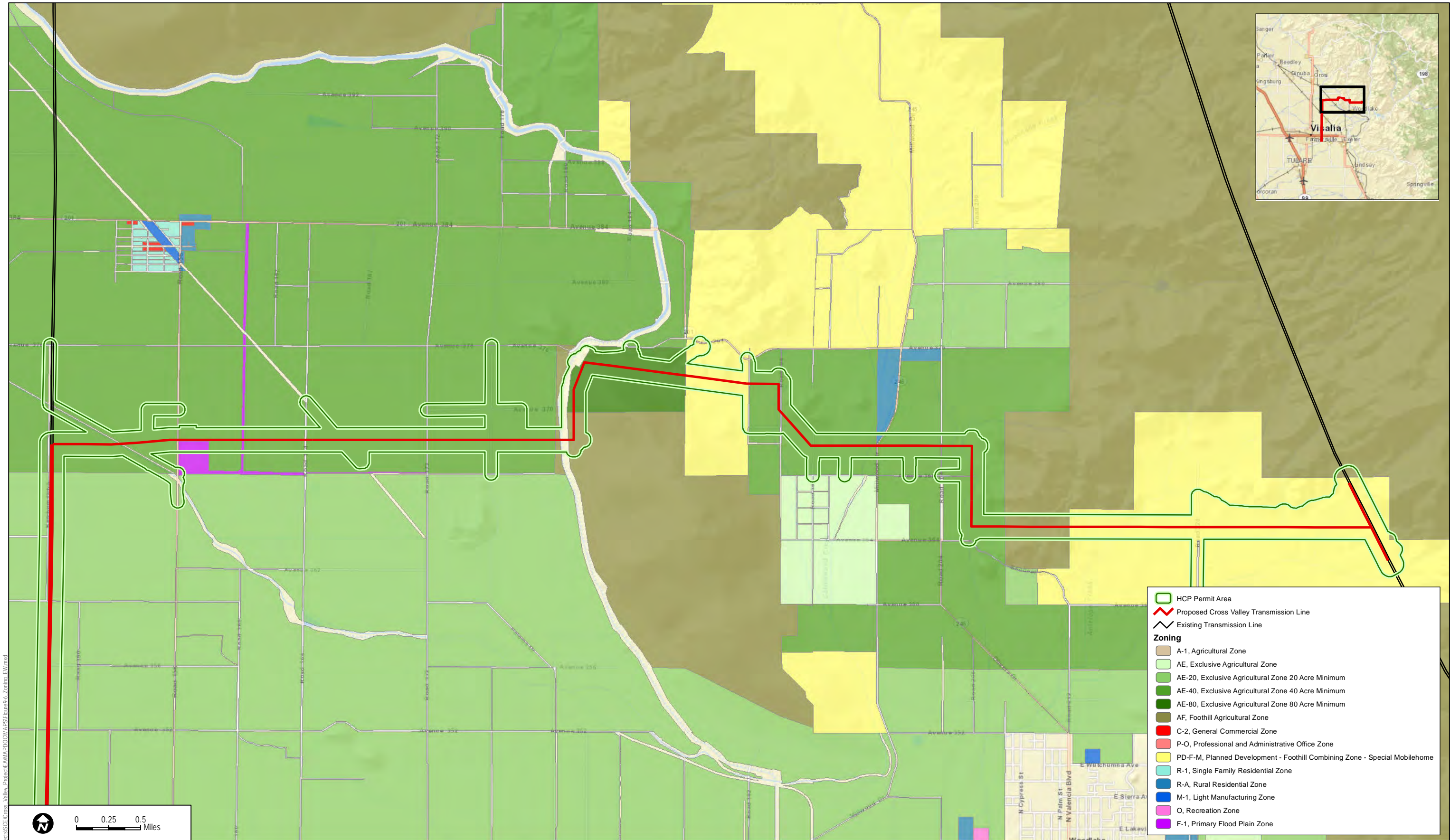


SOURCE: SCE 2013, Tulare County 2011, ESRI Online

FIGURE 9-5

Foothill Growth Management Plan

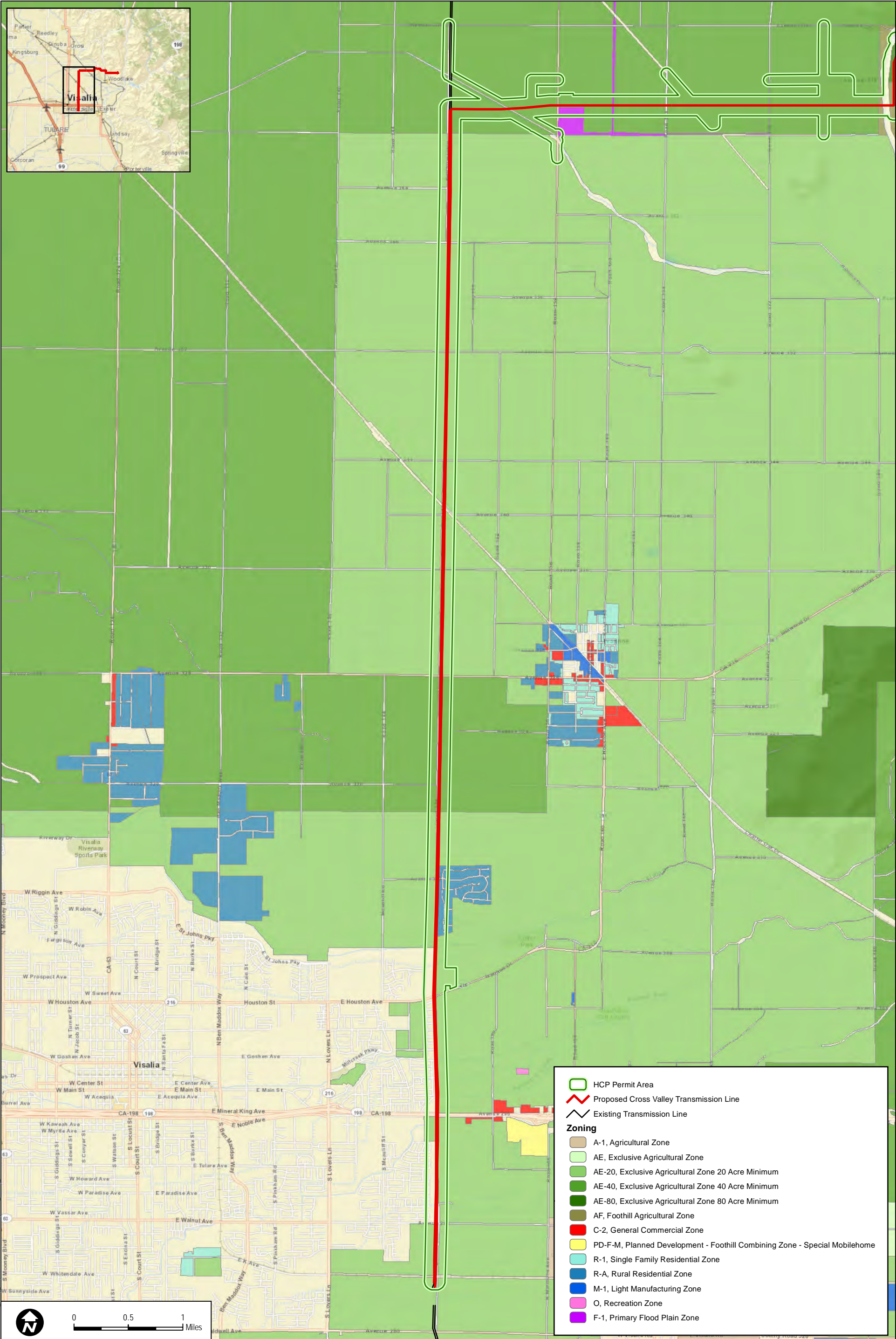
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SOURCE: SCE 2013, Tulare County, ESRI Online

FIGURE 9-6
Zoning (E-W Alignment)

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SOURCE: SCE 2013, Tulare County, ESRI Online

FIGURE 9-7
Zoning (N-S Alignment)

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